

NATIONAL QUALITY FORUM

Measure Evaluation 4.1 December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the [evaluation criteria](#) are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all **yellow highlighted** areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all **pink** highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met

C = Completely (unquestionably demonstrated to meet the criterion)

P = Partially (demonstrated to partially meet the criterion)

M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)

N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)

NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) NQF Review #: 0116	NQF Project: Surgery Endorsement Maintenance 2010
MEASURE DESCRIPTIVE INFORMATION	
De.1 Measure Title: Anti-Platelet Medication at Discharge	
De.2 Brief description of measure: Percent of patients aged 18 years and older undergoing isolated CABG who were discharged on anti-platelet medication	
1.1-2 Type of Measure: Process	
De.3 If included in a composite or paired with another measure, please identify composite or paired measure OT1-013-09 - The STS CABG Composite Score	
De.4 National Priority Partners Priority Area: Safety	
De.5 IOM Quality Domain: Safety	
De.6 Consumer Care Need: Getting better	

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
<p>A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. <i>Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.</i></p> <p>A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)? Yes</p> <p>A.2 Indicate if Proprietary Measure (as defined in measure steward agreement):</p> <p>A.3 Measure Steward Agreement: Agreement will be signed and submitted prior to or at the time of measure submission</p> <p>A.4 Measure Steward Agreement attached: STS Measure Steward Agreement. Fully Executed-634267298037423250.pdf</p>	<p>A</p> <p>Y <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

<p>B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section</p>	<p>B Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ► Purpose: Public reporting, Internal quality improvement</p>	<p>C Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1 Testing: Yes, fully developed and tested D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures? Yes</p>	<p>D Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>(for NQF staff use) Have all conditions for consideration been met? Staff Notes to Steward (if submission returned):</p>	<p>Met Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>Staff Notes to Reviewers (issues or questions regarding any criteria):</p>	
<p>Staff Reviewer Name(s):</p>	

<p>TAP/Workgroup Reviewer Name:</p>	
<p>Steering Committee Reviewer Name:</p>	
<p>1. IMPORTANCE TO MEASURE AND REPORT</p>	
<p>Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria) 1a. High Impact</p>	<p><u>Eval</u> <u>Rating</u></p>
<p>(for NQF staff use) Specific NPP goal:</p>	
<p>1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, Frequently performed procedure, Leading cause of morbidity/mortality, High resource use, Severity of illness, Patient/societal consequences of poor quality 1a.2 1a.3 Summary of Evidence of High Impact: The provision of anti-platelet therapy at discharge is currently accepted as standard of care for promotion of secondary prevention of coronary artery disease. Multiple peer review publications listed below provide evidence for this marker. 1a.4 Citations for Evidence of High Impact: - Foody JM, Ferdinand FD, Galusha D, et al. Patterns of secondary prevention in older patients undergoing coronary artery bypass grafting during hospitalization for acute myocardial infarction. Circulation. 2003;108(Suppl-1):II24-II28. - Holman WL, Sansom M, Kiefe CI, Peterson ED, Hubbard SG, DeLong JF, Allman RM. Alabama Coronary Artery Bypass Grafting Project. Ann Surg. 2004;239:99-109. - Mangano DT. Aspirin and mortality from coronary bypass surgery. N Engl J Med. 2002;347(17):1309-1317. - Topol EJ. Aspirin with bypass surgery. N Engl J Med. 2002;347(17):1359-1360. - Welke KF, Ferguson TB, Coombs LP, et al. Validity of the Society of Thoracic Surgeons National Adult Cardiac Surgery Database. Ann Thorac Surg. 2004;77:1137-1139. - Eagle KA, Guyton RA, Davidoff R, Edwards FH, Ewy GA, Gardner TJ, et al. ACC/AHA 2004 guideline</p>	<p>1a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>update for coronary artery bypass graft surgery: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Update the 1999 Guidelines for Coronary Artery Bypass Graft Surgery). Circulation. 2004;110:e340-47.</p>	
<p>1b. Opportunity for Improvement</p> <p>1b.1 Benefits (improvements in quality) envisioned by use of this measure: This quality measure will improve bypass graft patency and promote secondary prevention of CAD after CABG. It is expected that long-term mortality reduction following CABG surgery will occur with ASA therapy.</p> <p>1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers: Please see attachment</p> <p>1b.3 Citations for data on performance gap: Dates: January 1, 2009-December 31, 2009</p> <p>Analysis includes 581 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months.</p> <p>1b.4 Summary of Data on disparities by population group: N/A</p> <p>1b.5 Citations for data on Disparities: N/A</p>	<p>1b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>1c. Outcome or Evidence to Support Measure Focus</p> <p>1c.1 Relationship to Outcomes (For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population): Patients requiring CABG have advanced, severe 3-vessel CAD. Aspirin therapy is accepted as a cornerstone of CAD treatment. It is believed that treatment with aspirin has a proven benefit in this group of patients.</p> <p>1c.2-3. Type of Evidence: Observational study, Expert opinion, Systematic synthesis of research, Other Clinical results from approximately 90% of cardiac surgery centers in the US</p> <p>1c.4 Summary of Evidence (as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome): The overwhelming evidence supports aspirin use for CAD.</p> <p>1c.5 Rating of strength/quality of evidence (also provide narrative description of the rating and by whom):</p> <p>1c.6 Method for rating evidence:</p> <p>1c.7 Summary of Controversy/Contradictory Evidence:</p> <p>1c.8 Citations for Evidence (other than guidelines): - Foody JM, Ferdinand FD, Galusha D, et al. Patterns of secondary prevention in older patients undergoing coronary artery bypass grafting during hospitalization for acute myocardial infarction. Circulation. 2003;108(Suppl-1):II24-II28. - Holman WL, Sansom M, Kiefe CI, Peterson ED, Hubbard SG, DeLong JF, Allman RM. Alabama Coronary Artery Bypass Grafting Project. Ann Surg. 2004;239:99-109. - Mangano DT. Aspirin and mortality from coronary bypass surgery. N Engl J Med. 2002;347(17):1309-1317. - Topol EJ. Aspirin with bypass surgery. N Engl J Med. 2002;347(17):1359-1360. - Welke KF, Ferguson TB, Coombs LP, et al. Validity of the Society of Thoracic Surgeons National Adult Cardiac Surgery Database. Ann Thorac Surg. 2004;77:1137-1139. - Eagle KA, Guyton RA, Davidoff R, Edwards FH, Ewy GA, Gardner TJ, et al. ACC/AHA 2004 guideline</p>	<p>1c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>update for coronary artery bypass graft surgery: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Update the 1999 Guidelines for Coronary Artery Bypass Graft Surgery). <i>Circulation</i>. 2004;110:e340-47.</p> <p>1c.9 Quote the Specific guideline recommendation (including guideline number and/or page number): Guideline Number 4.2.1. Page e254 of the AHA/ACC guidelines</p> <p>1c.10 Clinical Practice Guideline Citation:</p> <p>1c.11 National Guideline Clearinghouse or other URL:</p> <p>1c.12 Rating of strength of recommendation (also provide narrative description of the rating and by whom):</p> <p>1c.13 Method for rating strength of recommendation (If different from USPSTF system, also describe rating and how it relates to USPSTF):</p> <p>1c.14 Rationale for using this guideline over others:</p>	
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Importance to Measure and Report</i>?</p>	<p>1</p>
<p>Steering Committee: Was the threshold criterion, <i>Importance to Measure and Report</i>, met? Rationale:</p>	<p>1 Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES</p>	
<p>Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>2a. MEASURE SPECIFICATIONS</p>	
<p>S.1 Do you have a web page where current detailed measure specifications can be obtained? S.2 If yes, provide web page URL:</p> <p>2a. Precisely Specified</p>	
<p>2a.1 Numerator Statement (Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome): Number of patients undergoing isolated CABG who were discharged on anti-platelet medication</p>	
<p>2a.2 Numerator Time Window (The time period in which cases are eligible for inclusion in the numerator):</p>	
<p>2a.3 Numerator Details (All information required to collect/calculate the numerator, including all codes, logic, and definitions): Number of isolated CABG procedures in which discharge aspirin [DCASA (STS Adult Cardiac Surgery Database Version 2.73)] or discharge ADP inhibitors (DCADP) is marked "yes"</p>	
<p>2a.4 Denominator Statement (Brief, text description of the denominator - target population being measured): All patients undergoing isolated CABG</p>	
<p>2a.5 Target population gender: Female, Male</p>	
<p>2a.6 Target population age range: 18 and older</p>	
<p>2a.7 Denominator Time Window (The time period in which cases are eligible for inclusion in the</p>	<p>2a- specs C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p><i>denominator</i>): 12 months</p> <p>2a.8 Denominator Details (All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions): Number of isolated CABG procedures excluding cases with in-hospital mortality or cases for which discharge aspirin use was contraindicated.</p> <p>Isolated CABG is determined as a procedure for which all of the following apply:</p> <ul style="list-style-type: none"> - OpCAB is marked “Yes” - (VADProc is marked “No” or “Missing”) or (VADProc is marked “Yes, Implanted” and UnplVAD is marked “yes”) - OCarASDTy is marked “PFO” or “missing” - OCarAFibAProc is marked “primarily epicardial” or “missing” and - OpValve, VSAV, VSAVPr, ResectSubA, VSMV, VSMVPr, OpTricus, OpPulm, OpONCard, OCarLVA, OCarVSD, OCarSVR, OCarCong, OCarTrma, OCarCrTx, OCAoProcType, EndoProc, OCTumor, OCPulThromDis, OCarOthr are all marked “no” or “missing”
<p>2a.9 Denominator Exclusions (Brief text description of exclusions from the target population): Cases are removed from the denominator if there was an in-hospital mortality or if discharge aspirin was contraindicated.</p> <p>2a.10 Denominator Exclusion Details (All information required to collect exclusions to the denominator, including all codes, logic, and definitions): Mortality Discharge Status (MtDCStat), Mortality Date (MtDate), and Discharge Date (DischDt) indicate an in-hospital mortality; discharge aspirin (DCASA) is marked as “Contraindicated”</p>
<p>2a.11 Stratification Details/Variables (All information required to stratify the measure including the stratification variables, all codes, logic, and definitions): N/A</p>
<p>2a.12-13 Risk Adjustment Type: No risk adjustment necessary</p> <p>2a.14 Risk Adjustment Methodology/Variables (List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method): N/A</p> <p>2a.15-17 Detailed risk model available Web page URL or attachment:</p>
<p>2a.18-19 Type of Score: Rate/proportion 2a.20 Interpretation of Score: Better quality = Higher score 2a.21 Calculation Algorithm (Describe the calculation of the measure as a flowchart or series of steps): N/A</p>
<p>2a.22 Describe the method for discriminating performance (e.g., significance testing): Two-sided 95% binomial confidence intervals; a confidence interval is calculated for each database participant. If the overall STS database result falls within the participant’s 95% binomial confidence interval, the participant’s performance is considered not significantly different from the overall database result. If the overall STS database result falls to the right of the participant’s 95% binomial confidence interval, then the participant’s performance is considered significantly lower than the overall database results. If the overall STS database result falls to the left of the participant’s 95% binomial confidence interval, then the participant’s performance is considered significantly higher than the overall database results.</p>
<p>2a.23 Sampling (Survey) Methodology If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate): N/A</p>
<p>2a.24 Data Source (Check the source(s) for which the measure is specified and tested) Registry data</p>
<p>2a.25 Data source/data collection instrument (Identify the specific data source/data collection</p>

instrument, e.g. name of database, clinical registry, collection instrument, etc.):
[STS Adult Cardiac Surgery Database - Version 2.73](#)

2a.26-28 Data source/data collection instrument reference web page URL or attachment: [URL Data Collection Form \(an updated version will be made available on the STS Website in mid-December of 2010\)---](#)
http://www.sts.org/documents/pdf/ndb2010/STSAultCVDDataCollectionForm2_7_Annotated_20101021.pdf

2a.29-31 Data dictionary/code table web page URL or attachment: [URL](#)
http://www.sts.org/documents/pdf/ndb2010/STSAultCVDDataSpecificationsV2_7_20101021.pdf -- an updated version will be made available on the STS Website in mid-December of 2010

2a.32-35 Level of Measurement/Analysis (Check the level(s) for which the measure is specified and tested)
 Clinicians: Group, Facility/Agency, Population: national, Population: regional/network, Population: states, Population: counties or cities

2a.36-37 Care Settings (Check the setting(s) for which the measure is specified and tested)
 Hospital

2a.38-41 Clinical Services (Healthcare services being measured, check all that apply)
 Clinicians: Physicians (MD/DO)

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample (description of data/sample and size): [STS Adult Cardiac Surgery Database - Compared results between two proximate time periods: January 2008-December 2008 and January 2009-December 2009.](#)

2b.2 Analytic Method (type of reliability & rationale, method for testing):
 Compare results between two proximate time periods: January 2008-December 2008 and January 2009-December 2009. Excluded from analysis are participants that did not submit results for both time periods. As database participants can change their underlying care processes at any time, we would not expect perfect correlation between two sets of results from even proximate time periods.

2b.3 Testing Results (reliability statistics, assessment of adequacy in the context of norms for the test conducted):
 Please see attachment

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 N

2c. Validity testing

2c.1 Data/sample (description of data/sample and size): [STS Adult Cardiac Surgery Database](#)
 Audits conducted in 2010, all cases performed in 2009; N = 40 randomly selected sites participating in the STS Adult Cardiac Surgery Database

2c.2 Analytic Method (type of validity & rationale, method for testing):
 Participating sites are randomly selected for participation in STS Adult Cardiac Surgery Database Audit, which is designed to evaluate the accuracy, consistency, and comprehensiveness of data collection and ultimately validate the integrity of the data contained in the database. The Iowa Foundation for Medical Care (IFMC), the quality improvement organization for Iowa and Illinois, has conducted audits on behalf of STS since 2006.

Each year, the IFMC conducts audits at randomly selected sites throughout the country and tracks the individual agreement rates by variable and by year. More specifically, for each site, agreement rates are calculated for 73 individual elements. In addition, aggregate agreement rates for each element, variable category (e.g., pre-operative risk factors, previous interventions, etc), and overall for all categories are calculated for all sites. While this is not region specific, it is data point specific and comparison agreement

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<p>rates confirm the improvement over time as well as the consistency.</p> <p>2c.3 Testing Results (<i>statistical results, assessment of adequacy in the context of norms for the test conducted</i>): Aspirin at Discharge: 96.9% agreement rate ADP Inhibitors at Discharge: 92.1% agreement rate</p>	
<p>2d. Exclusions Justified</p> <p>2d.1 Summary of Evidence supporting exclusion(s):</p> <p>2d.2 Citations for Evidence:</p> <p>2d.3 Data/sample (<i>description of data/sample and size</i>): Dates: January 1, 2009-December 31, 2009; 628 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months. Patients with contraindications to the medication are excluded from this NQF measure.</p> <p>2d.4 Analytic Method (<i>type analysis & rationale</i>):</p> <p>2d.5 Testing Results (<i>e.g., frequency, variability, sensitivity analyses</i>): Please see attachment</p>	<p>2d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2e. Risk Adjustment for Outcomes/ Resource Use Measures</p> <p>2e.1 Data/sample (<i>description of data/sample and size</i>): N/A</p> <p>2e.2 Analytic Method (<i>type of risk adjustment, analysis, & rationale</i>):</p> <p>2e.3 Testing Results (<i>risk model performance metrics</i>):</p> <p>2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:</p>	<p>2e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2f. Identification of Meaningful Differences in Performance</p> <p>2f.1 Data/sample from Testing or Current Use (<i>description of data/sample and size</i>): 581 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months; January 1, 2009-December 31, 2009</p> <p>2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance (<i>type of analysis & rationale</i>): Two-sided 95% binomial confidence intervals; a confidence interval is calculated for each database participant. If the overall STS database result falls within the participant's 95% binomial confidence interval, the participant's performance is considered not significantly different from the overall database result. If the overall STS database result falls to the right of the participant's 95% binomial confidence interval, then the participant's performance is considered significantly lower than the overall database results. If the overall STS database result falls to the left of the participant's 95% binomial confidence interval, then the participant's performance is considered significantly higher than the overall database results.</p> <p>2f.3 Provide Measure Scores from Testing or Current Use (<i>description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance</i>): Please see attachment</p>	<p>2f C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>2g. Comparability of Multiple Data Sources/Methods</p> <p>2g.1 Data/sample (description of data/sample and size): N/A</p> <p>2g.2 Analytic Method (type of analysis & rationale):</p> <p>2g.3 Testing Results (e.g., correlation statistics, comparison of rankings):</p>	<p>2g</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p>2h. Disparities in Care</p> <p>2h.1 If measure is stratified, provide stratified results (scores by stratified categories/cohorts): N/A</p> <p>2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:</p>	<p>2h</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Scientific Acceptability of Measure Properties</i>?</p>	<p>2</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Scientific Acceptability of Measure Properties</i>, met?</p> <p>Rationale:</p>	<p>2</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p>3. USABILITY</p>	
<p>Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>3a. Meaningful, Understandable, and Useful Information</p> <p>3a.1 Current Use: In use</p> <p>3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large) (If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years): This measure is one of eleven component measures of the STS CABG Composite Score. Composite star ratings are presented in the health section of the Consumers Union website, www.ConsumerReportsHealth.org Currently, there are 221 STS Adult Cardiac Surgery Database participating hospitals who voluntarily participate in this initiative.</p> <p>3a.3 If used in other programs/initiatives (If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years): CMS Physician Quality Reporting Initiative (PQRI), www.cms.hhs.gov/pqri</p> <p>Testing of Interpretability (Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement)</p> <p>3a.4 Data/sample (description of data/sample and size): See 3a.6 below</p> <p>3a.5 Methods (e.g., focus group, survey, QI project):</p> <p>3a.6 Results (qualitative and/or quantitative results and conclusions): Please see attachment</p>	<p>3a</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p>3b/3c. Relation to other NQF-endorsed measures</p>	

<p>3b.1 NQF # and Title of similar or related measures: OT1-013-09 - The STS CABG Composite Score; Component measures: 0114 Risk-Adjusted Post-operative Renal Failure, 0115 Risk-Adjusted Surgical Re-exploration, 0116 Anti-Platelet Medication at Discharge, 0117 Beta Blockade at Discharge, 0118 Anti-Lipid Treatment at Discharge, 0119 Risk-Adjusted Operative Mortality for CABG, 0127 Pre-Operative Beta Blockade, 0129 Risk-Adjusted Prolonged Intubation (ventilation), 0130 Risk-Adjusted Deep Sternal Wound Infection Rate, 0131 Risk-Adjusted Stroke/Cerebrovascular Accident, 0134 Use of Internal Mammary Artery (IMA) in Coronary Artery Bypass Graft (CABG)</p>	
<p>(for NQF staff use) Notes on similar/related <u>endorsed</u> or submitted measures:</p>	
<p>3b. Harmonization If this measure is related to measure(s) already <u>endorsed by NQF</u> (e.g., same topic, but different target population/setting/data source <u>or</u> different topic but same target population): 3b.2 Are the measure specifications harmonized? If not, why? N/A; however, data definitions and key elements have been established by a multi-societal writing committee called the “ACCF/AHA Writing Committee to Develop Acute Coronary Syndromes and Coronary Artery Disease Clinical Data Standards” with representatives from each of the following organizations:</p> <p>Agency for Healthcare Research and Quality American College of Cardiology American College of Chest Physicians American College of Emergency Physicians American College of Physicians American College of Preventative Medicine American Heart Association American Medical Association Centers for Disease Control and Prevention Emergency Nurses Association Food and Drug Administration Joint Commission on Accreditation of Healthcare Organizations National Association of Emergency Medical Technicians National Association of EMS Physicians National Heart, Lung, and Blood Institute Preventive Cardiovascular Nurses Association Society for Academic Emergency Medicine Society of Chest Pain Centers and Providers Society of General Internal Medicine Society of Thoracic Surgeons</p>	<p style="text-align: right;">3b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>3c. Distinctive or Additive Value 3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures: N/A</p> <p>5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality: N/A</p>	<p style="text-align: right;">3c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Usability</i>?</p>	<p style="text-align: right;">3</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Usability</i>, met? Rationale:</p>	<p style="text-align: right;">3 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
4. FEASIBILITY	
<p>Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (<u>evaluation criteria</u>)</p>	<p style="text-align: right;"><u>Eval</u> <u>Rating</u></p>

<p>4a. Data Generated as a Byproduct of Care Processes</p> <p>4a.1-2 How are the data elements that are needed to compute measure scores generated? Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)</p>	<p>4a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4b. Electronic Sources</p> <p>4b.1 Are all the data elements available electronically? (<i>elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims</i>) Yes</p> <p>4b.2 If not, specify the near-term path to achieve electronic capture by most providers.</p>	<p>4b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4c. Exclusions</p> <p>4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications? No</p> <p>4c.2 If yes, provide justification.</p>	<p>4c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences</p> <p>4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results. This measure may be susceptible to human error (i.e., recording the measure inaccurately or not at all). When data collection on this measure is done through participation in the STS Adult Cardiac Surgery Database, an auditing strategy is in place. Both STS and the Duke Clinical Research Institute have a list of database participants making participation in the STS Adult Cardiac Surgery Database easy to track. Each participant is responsible for the quality and accuracy of the data they submit to the database. The participant agrees to the following quality control measures in the participation agreement: i) Participant hereby warrants that all data submitted for inclusion in the STS National Database will be accurate and complete, and acknowledges that such data may be subject to independent audit. Participant will use its best efforts to address any data or related deficiencies identified by the independent data warehouse service provider and agrees to cooperate with and assist STS and its designees in connection with the performance of any independent audit. ii) Participant warrants that it will take all reasonable steps to avoid the submission of duplicative data for inclusion in the STS National Database, including but not limited to apprising the Director of the STS National Database and the independent data warehouse service provider about any other Participation Agreements in which an individual cardiothoracic surgeon named above or on Schedule A attached hereto (as amended from time to time) is also named. STS audited for these potential problems during testing. Please see IFMC audit results.</p>	<p>4d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4e. Data Collection Strategy/Implementation</p> <p>4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:</p>	<p>4e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>4e.2 Costs to implement the measure (<i>costs of data collection, fees associated with proprietary measures</i>): Data Collection: There are no direct costs to collect the data for this measure. Costs to develop the measure included volunteer cardiothoracic surgeon time, STS staff time, and DCRI statistician and project management time.</p> <p>Other fees: STS Adult Cardiac Surgery Database participants (single cardiothoracic surgeons or a group of surgeons) pay annual participant fees of \$2,950 or \$3,700, depending on whether participants are STS members (or whether the majority of surgeons in a group are STS members). As a benefit of STS membership, STS members are charged the lesser of the two fees.</p> <p>4e.3 Evidence for costs:</p> <p>4e.4 Business case documentation:</p>	
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Feasibility</i>?</p>	<p>4</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Feasibility</i>, met? Rationale:</p>	<p>4 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p style="text-align: center;">RECOMMENDATION</p>	
<p>(for NQF staff use) Check if measure is untested and only eligible for time-limited endorsement.</p>	<p>Time-limited <input type="checkbox"/></p>
<p>Steering Committee: Do you recommend for endorsement? Comments:</p>	<p>Y <input type="checkbox"/> N <input type="checkbox"/> A <input type="checkbox"/></p>
<p style="text-align: center;">CONTACT INFORMATION</p>	
<p>Co.1 Measure Steward (Intellectual Property Owner) Co.1 <u>Organization</u> Society of Thoracic Surgeons, 633 North Saint Clair Street, Suite 2320, Chicago, Illinois, 60611</p> <p>Co.2 <u>Point of Contact</u> Jane, Han, MSW, jhan@sts.org, 312-202-5856-</p>	
<p>Measure Developer If different from Measure Steward Co.3 <u>Organization</u> Society of Thoracic Surgeons, 633 North Saint Clair Street, Suite 2320, Chicago, Illinois, 60611</p> <p>Co.4 <u>Point of Contact</u> Jane, Han, MSW, jhan@sts.org, 312-202-5856-</p>	
<p>Co.5 Submitter If different from Measure Steward POC Jane, Han, MSW, jhan@sts.org, 312-202-5856-, Society of Thoracic Surgeons</p>	
<p>Co.6 Additional organizations that sponsored/participated in measure development</p>	
<p style="text-align: center;">ADDITIONAL INFORMATION</p>	
<p>Workgroup/Expert Panel involved in measure development Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations.</p>	

<p>Describe the members' role in measure development. Members of the STS Task Force on Quality Initiatives provide clinical expertise as needed. The STS Workforce on National Databases meets at the STS Annual Meeting and reviews the measures on a yearly basis. Changes or updates to the measure will be at the recommendation of the Workforce.</p>
<p>Ad.2 If adapted, provide name of original measure: Ad.3-5 If adapted, provide original specifications URL or attachment</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance Ad.6 Year the measure was first released: 2004 Ad.7 Month and Year of most recent revision: 12, 2010 Ad.8 What is your frequency for review/update of this measure? annually Ad.9 When is the next scheduled review/update for this measure? 2011</p>
<p>Ad.10 Copyright statement/disclaimers:</p>
<p>Ad.11 -13 Additional Information web page URL or attachment: Attachment 0116 Sections 1b.2, 2b.3, 2d.5, 2f.3, 3a.6.pdf</p>
<p>Date of Submission (MM/DD/YY): 01/12/2011</p>

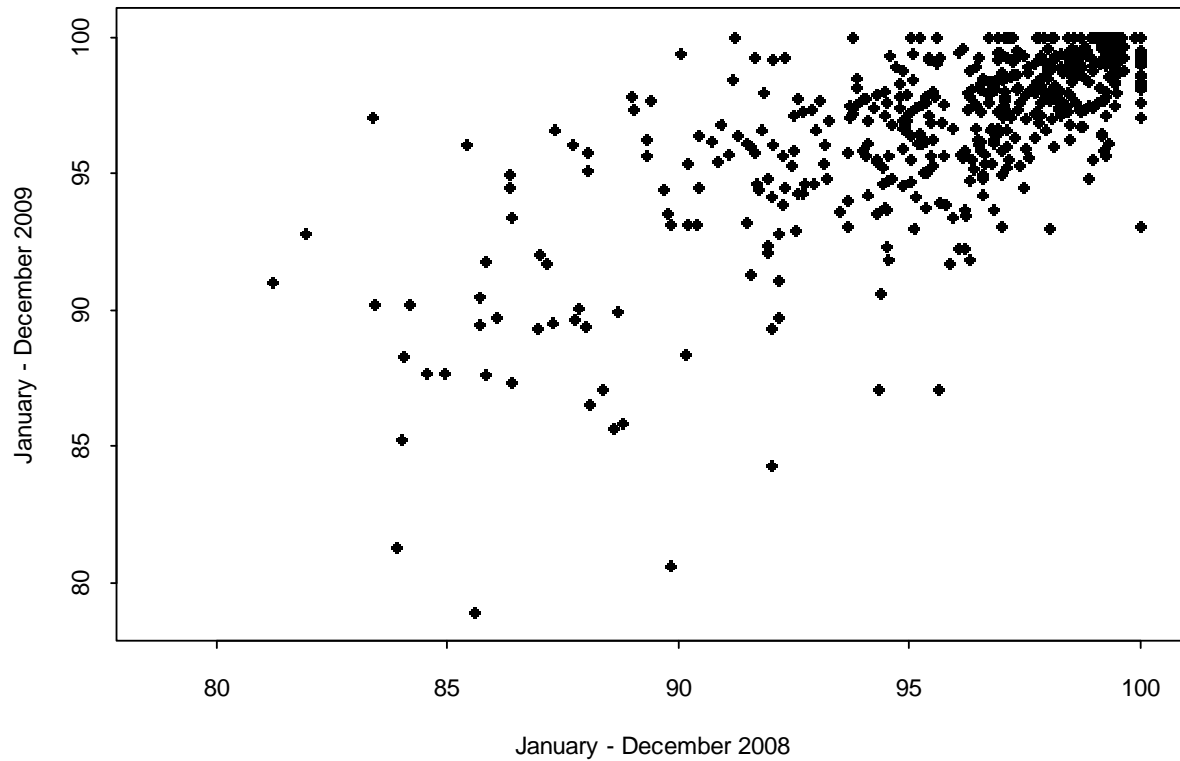
1b.2. Summary of Measure Results Demonstrating Performance Gap (*Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*)

<i>Measurement</i>	<i>Anti-platelet Medication at Discharge</i>
N	581
Mean	96.8%
1 st	85.2%
5 th	89.9%
10 th	93.0%
25 th	95.6%
Median	97.6%
75 th	99.2%
90 th	100.0%
95 th	100.0%
99 th	100.0%
Outlier	197 (33.9%)
High	115
Low	82

2b.3. Testing Results (*Reliability statistics, assessment of adequacy in the context of norms for the test conducted*)

Testing results: $\rho = 0.70$

Anti-platelet Medication at Discharge ($\rho=0.7$)

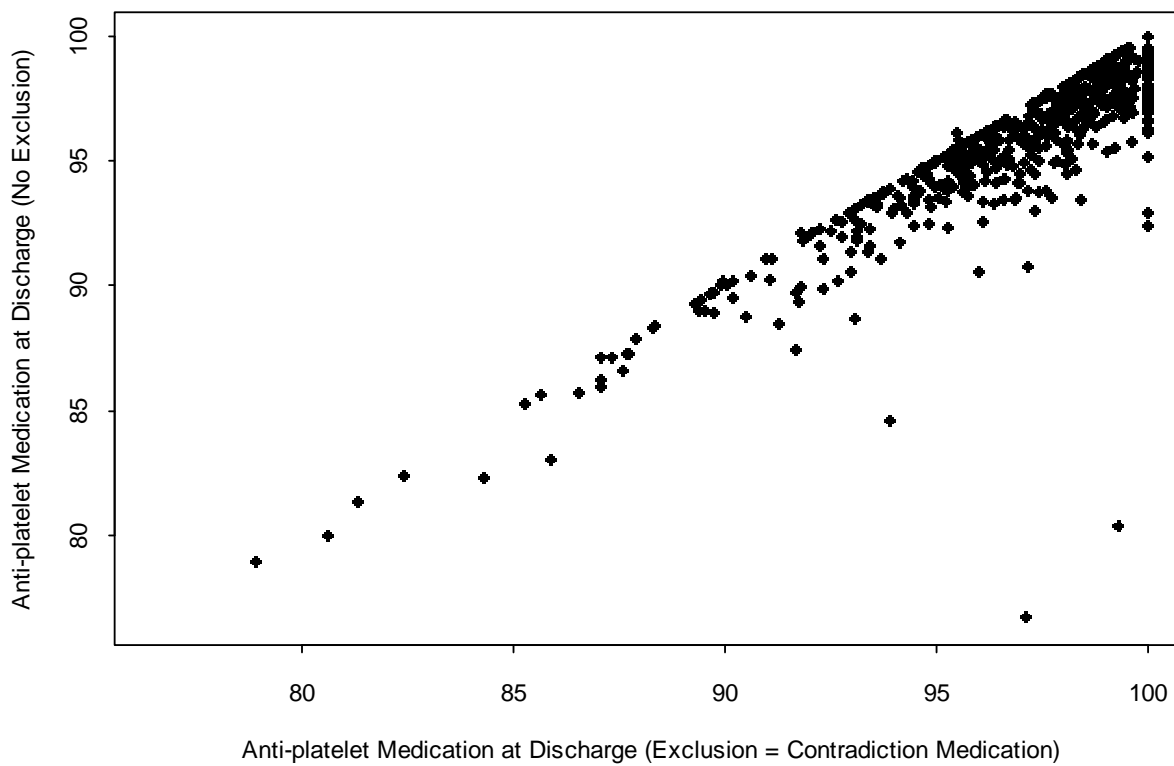


2d.5. Testing Results (E.g., frequency, variability, sensitivity analyses)

Anti-platelet Medication at Discharge

# of Patients	140,573
# excluded	8,521
% excluded	0.06

Anti-platelet Medication at Discharge ($\rho=0.87$)



2f.3. Measure Scores from Testing or Current Use (*Description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance*)

Results below are from January 1, 2009-December 31, 2009. Sample contains 581 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months.

<i>Measurement</i>	<i>Anti-platelet Medication at Discharge</i>
N	581
Mean	96.8%
1 st	85.2%
5 th	89.9%
10 th	93.0%
25 th	95.6%
Median	97.6%
75 th	99.2%
90 th	100.0%
95 th	100.0%
99 th	100.0%
Outlier†	197 (33.9%)
High	115
Low	82

†Represents the number of participants that are outliers according to two-sided 95% binomial confidence interval.

3a.6. Results (Qualitative or quantitative results and conclusions)

Although formal testing of interpretability has not been performed, this measure has been used and reported for STS Adult Cardiac Surgery database participants since 2007. Current report presentation and interpretation manuals are presented below. These materials are updated as needed based upon feedback from database participants.

1) Report Overview and Interpretation Manual:

The NQF Measures Report

a. Organization

This report section is separated into three areas corresponding to: 1) NQF volume measures, 2) NQF process measures, and 3) NQF outcomes measures, in that order. The header at the top of each page references the report section for that page. Each NQF measure is presented on a single row in the section. Tabular data are on the left-hand side of each page and a standard graphic representation is shown on the right-hand side.

b. Statistical Calculation and Details – NQF Measures

Time period: This report section contains information on the individual STS participant and overall STS performance for the most recent 12 months for volume, process and CABG outcomes measures and the most recent 60 months for Valve and Valve + CABG outcomes. The 5 years (60 months) of performance for outcomes involving Valve procedures is necessary due to smaller sample sizes.

Volume Measures: The NQF report provides average annual case volumes data for three surgery categories: i) Isolated CABG, ii) Valve without CABG, and iii) combined CABG + Valve. Definitions of the three surgery categories are provided in Table 2 of this NQF Report Overview. For each type of surgery, the participant's annualized volume is calculated as:

$$\text{Participant Annualized Volume} = 12 \times (\# \text{ of surgeries}) / (\# \text{ of months})$$

where (# of surgeries) denotes the number of surgeries of the specified type performed by the participant during the specified time period, and (# of months) is the number of months during the specified time period for which the participant submitted at least one cardiac surgery of any type. The intent of calculating “annualized” volumes is to adjust for participants who participated in the database for fewer months than the time period specified. For participants who participated in the database and submitted cases every month during 2006, the annualized volume for 2006 is simply the total number of cases.

The STS Average Annualized Volume is the average value of all of the participant annualized volumes across the entire population of STS participants. The Participant Percentile indicates the percent of STS participants whose annualized volumes are less than, or equal to, your own. Higher percentiles indicate higher volumes in relation to other STS participant sites. The Distribution of Participant Values shows the range and percentiles of the distribution of participant annualized volumes across all database participants. For example, 90% of participants have annualized volumes less than or equal to the value marked “90th percentile.” Confidence intervals are not provided for volume measures, as volume is known with certainty and is not estimated.

Process Measures: The NQF process measures provide data on the frequency of usage of five therapies among subsets of Isolated CABG patients. The therapies are: i) preoperative beta blockade therapy, ii) use of IMA, iii) discharge anti-platelet medication, iv) discharge beta blockade therapy, and v) discharge anti-lipid medication. The patient population for each measure differs, in accordance with the NQF specifications (see Table 2 of this NQF Report Overview for details). The number of Eligible

Procedures is the number of cases performed by the participant during the specified time period who meet the eligibility requirements to be included in the calculations when summarizing the participant's data. ***Beginning with the 2008 Harvest 3 report (covering the procedure time period through 6/30/2008), STS implementation of NQF medication process measures using data version 2.61 excludes records for which the medication was contraindicated/not indicated from the eligible population.*** The main summary statistic, Participant Usage, is the percent of eligible Isolated CABG cases during the specified time period for which the patient received the specified therapy. The Overall STS Usage is the percent of all eligible patients in the entire STS population during the specified time period who received the specified therapy. ***In calculating these percentages, missing data are treated as a "No", emphasizing the importance of having complete data in these fields.***

The Participant Percentile indicates the percent of STS participants who applied the therapy in their respective populations less frequently than or as frequently as did your institution. The Distribution of Participant Values shows the range and percentiles of the distribution of participant usage across all participants in the database. For example, 90% of participants use the therapy less frequently than the amount indicated by the "90th percentile". A bar identified as "Participant" indicates the point estimate and limits of a 95% Confidence Interval (CI) for the participant's usage of therapy. The underlying parameter being estimated is the long-run usage rate that would be observed in a large sample of patients. The 95% CI indicates the range of usage rates that are consistent with the data in light of sampling variability.

Outcomes Measures: The NQF outcomes data provide risk-adjusted analyses of mortality and morbidity for Isolated CABG surgery as well as risk-adjusted operative mortality for Isolated AVR, Isolated MVR, AVR+CABG, and MVR+CABG. The main summary statistic provided is the Participant's Estimated Odds Ratio (OR) based on a hierarchical logistic regression analysis. The OR measures the impact that a participant's performance level has on a patient's probability of experiencing an adverse outcome. The interpretation is similar to that of an O/E ratio (see the Risk-Adjusted Results: Overview portion of the General Report Overview for details on STS risk adjustment). An OR greater than 1.0 implies that the participant increases a patient's risk of experiencing the outcome, relative to an "average" STS participant. An OR less than 1.0 implies that the participant decreases a patient's risk of experiencing the outcome, relative to an "average" STS participant. Each measure is calculated among patients undergoing surgery of the type specified during the time period specified who additionally meet certain eligibility requirements. The column labeled Eligible Procedures indicates the number of patients who met the inclusion criteria to be included in the analysis for the indicated measure. The Participant Percentile is the percent of STS participants who have an estimated OR that is greater than or equal to your estimated OR. Note that this is different than performance percentiles for process measures, where the percentile indicates the percentage of STS participants with performance that is *less than* the specified number. This simply reflects the fact that high process compliance is desirable, whereas a high OR is undesirable.

The Observed Participant Rate is the percent of eligible patients who experienced the specified outcome. Unlike the participant estimated OR, the observed participant rate is not risk-adjusted. The estimated OR is the main summary statistic for summarizing the NQF measure in this report.

The Distribution of Participant Values shows the range and percentiles of the distribution of estimated Odds Ratios across all STS participants. For example, 90% of STS participants have an OR greater than the value indicated by the "90th percentile." The line that extends to the left and right of the Participant Value indicates the lower and upper limits of a 95% Confidence Interval (CI) surrounding the participant's estimated OR.

c. Technical Notes

Calculation of Percentiles for the Distribution of Participant Values: The graph provided for each measure contains information about the distribution of the value of the measure across all STS

participants, namely the minimum, maximum, 10th percentile, 50th percentile, and 90th percentile. The “Xth” percentile, denoted P_x , is loosely defined as the number having the property that X% of the participant values are less than P_x , and (100 – X)% of the participant values are greater than P_x . **For process measures, participants with greater than 5% missing data were excluded when calculating percentiles of the STS distribution and do not have a calculated participant percentile.** For participants having less than 5% missing data on a process measure, the missing values on the process measure were converted to “No” before calculating percentiles. For outcomes measures, all participants submitting at least one eligible case were included when calculating percentiles of the STS distribution. Missing data on outcomes variables were treated as “No.”

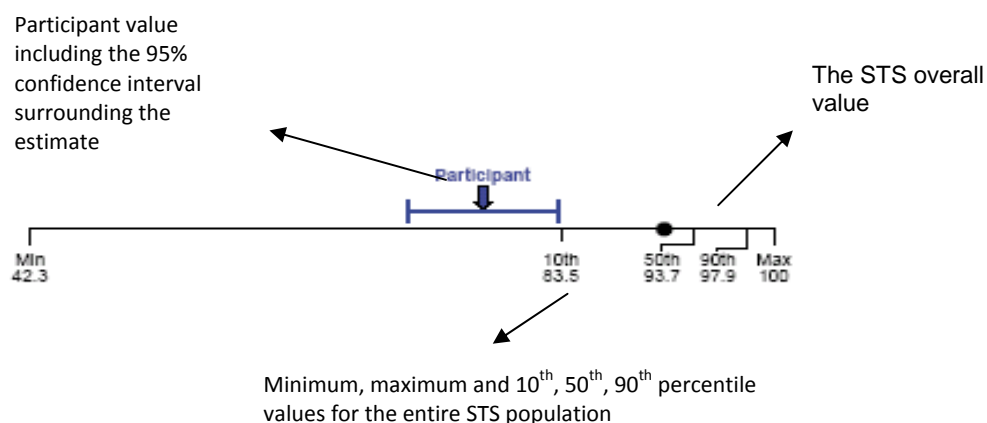
NQF/STS Results Comparison: Participants may see some differences between summaries of their data provided in the NQF section of the report and summaries of their data reported elsewhere in the STS report. These differences are due to subtle variations in variable definitions, patient inclusion and exclusion criteria, and rules for handling missing data in the NQF section versus the rest of the report. Definitions used in the NQF report were designed to match current NQF specifications as closely as possible. It is expected that these differences will eventually disappear as the NQF measures are refined. Some important differences are:

Case Volumes – The NQF report section presents “annualized” volumes. These are case volumes that have been adjusted for the number of months that a participant was an active contributor to the database. Elsewhere in the STS report, total case volumes are presented without adjustment for the length of participation.

Eligible Cases - The NQF report also presents the number of “eligible cases” for each measure. Separate inclusion criteria are applied to each measure, and these inclusion criteria do not always match the definitions used elsewhere in the STS report. Please refer to the footnotes in each section for specific details.

Interpretation Manual

In addition to the statistics provided for each of the STS Composite Quality Domains and NQF measures, a figure representing the distribution of values for the entire STS population is provided.



The figure allows participants to quickly judge their performance relative to the overall STS. The scale of the figure is set up such that the right side of the distribution represents the most favorable performance and the left side represents the least favorable performance (Note that in some cases smaller numbers will be on the left; in other instances, smaller numbers will be on the right. For example, for the Pre-operative Beta Blockade Therapy measure, the far left side of the distribution will contain the *lowest* percentage Beta Blockade Therapy for an STS participant – this corresponds to least

favorable performance. Alternatively, for the Operative Mortality Measure, the far left side of the distribution will contain the *highest* Estimated Odds Ratio – this also corresponds to least favorable performance). If a participant’s value for a given measure is to the left of the STS overall value, the participant is performing worse on that measure than the overall STS. Conversely, if the participant’s value for a given measure is located to the right of the overall STS value, the participant is performing better than the overall STS.

NOTE! Care should be given to reading these figures. In some instances, the various percentiles presented cluster very close together in the data. In such cases, the label for the percentile is not necessarily located immediately at the point on the distribution where the percentile occurs. An example of this is apparent in the figure above: The 50th percentile corresponds to a value of 93.7 and looks to align fairly closely with the STS overall value as represented by the large black dot. However, the expandable figure marking actually points to a place somewhere to the right of the STS overall value for the 50th percentile marking. So the STS overall value would be some amount less than 93.7.

Also, please note that in some cases, small sample sizes preclude valid comparisons between the participant and the STS overall. Such instances are clearly noted in the report output.

a. NQF Measures Interpretation Example

Sample CABG Operative Mortality results – tabular and figure representation.

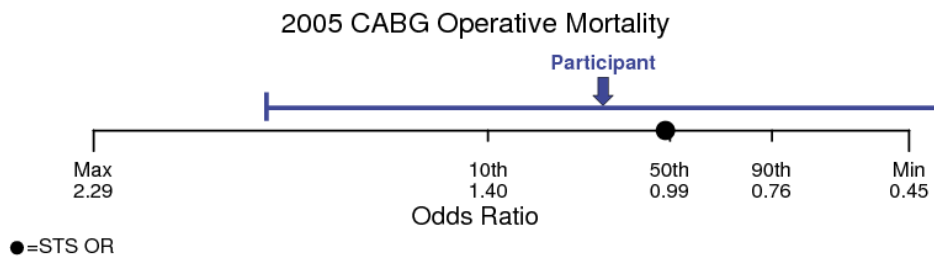
NQF Measure	Eligible Procedures	Participant Estimated OR	Participant Percentile	Participant Observed Rate
2005 CABG Operative Mortality	74	1.14	26.3	5.4%

Eligible Procedures: 74 patients met the inclusion criteria for the indicated measure.

Participant Estimated OR (Odds Ratio): The main summary statistic measuring the impact that a participant’s performance has on a patient’s probability of experiencing an adverse outcome has a value of 1.14 indicating worse than expected performance.

Participant Percentile: 26.3% of STS participants had an estimated OR greater than or equal to your estimated OR. In other words, 26.3% had the same or worse performance.

Participant Observed Rate: 5.4% of the 74 eligible patients experienced the specified outcome.



The highest OR among all STS participants = 2.29
 The lowest OR among all STS participants = 0.45
 The STS average OR is 1.00

The 95% confidence interval for the participant's OR spans from <0.45 to ~1.90

2) Sample page from section of the report that contains NQF measure results:



**NQF Measures
Process Measures
Participant 99999
STS Period Ending 12/31/2008**



NQF Measure	Eligible Procedures	Participant Usage (95% CI)	Participant Percentile	Overall STS Usage	Distribution of Participant Values ● = Overall STS Usage
Jan 2008 - Dec 2008 Preoperative Beta Blockade Therapy ¹	541	89.3% (86.4 , 91.8)	69.9	82.1%	
Jan 2008 - Dec 2008 Use of IMA ²	536	96.5% (94.5 , 97.9)	63.3	94.2%	
Jan 2008 - Dec 2008 Discharge Anti-Platelet Medication ³	536	98.7% (97.3 , 99.5)	68.7	96.1%	
Jan 2008 - Dec 2008 Discharge Beta Blockade Therapy ⁴	538	96.1% (94.1 , 97.6)	53.4	93.7%	
Jan 2008 - Dec 2008 Discharge Anti-Lipid Treatment ⁴	535	91.8% (89.1 , 94.0)	40.7	91.4%	

¹Excludes v2.61 contraindicated / not indicated records.

²Excludes patients with prior CABG surgery

³Anti-platelet use includes Aspirin and ADP Inhibitors, and excludes in-hospital mortalities. Excludes v2.61 contraindicated / not indicated records.

⁴Excludes in-hospital mortalities. Excludes v2.61 contraindicated / not indicated records.

NATIONAL QUALITY FORUM

Measure Evaluation 4.1 December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the [evaluation criteria](#) are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all **yellow highlighted** areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all **pink** highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met

C = Completely (unquestionably demonstrated to meet the criterion)

P = Partially (demonstrated to partially meet the criterion)

M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)

N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)

NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) NQF Review #: 0118	NQF Project: Surgery Endorsement Maintenance 2010
MEASURE DESCRIPTIVE INFORMATION	
De.1 Measure Title: Anti-Lipid Treatment Discharge	
De.2 Brief description of measure: Percent of patients aged 18 years and older undergoing isolated CABG who were discharged on a statin or other lipid-lowering regimen	
1.1-2 Type of Measure: Process	
De.3 If included in a composite or paired with another measure, please identify composite or paired measure OT1-013-09 - The STS CABG Composite Score	
De.4 National Priority Partners Priority Area: Safety	
De.5 IOM Quality Domain: Safety	
De.6 Consumer Care Need: Getting better	

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
<p>A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. <i>Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.</i></p> <p>A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)? Yes</p> <p>A.2 Indicate if Proprietary Measure (as defined in measure steward agreement):</p> <p>A.3 Measure Steward Agreement: Agreement will be signed and submitted prior to or at the time of measure submission</p> <p>A.4 Measure Steward Agreement attached: STS Measure Steward Agreement. Fully Executed-634281998899954268.pdf</p>	<p>A</p> <p>Y <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

<p>B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section</p>	<p>B Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ► Purpose: Public reporting, Internal quality improvement</p>	<p>C Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1 Testing: Yes, fully developed and tested D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures? Yes</p>	<p>D Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>(for NQF staff use) Have all conditions for consideration been met? Staff Notes to Steward (if submission returned):</p>	<p>Met Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>Staff Notes to Reviewers (issues or questions regarding any criteria):</p>	
<p>Staff Reviewer Name(s):</p>	

<p>TAP/Workgroup Reviewer Name:</p>	
<p>Steering Committee Reviewer Name:</p>	
<p>1. IMPORTANCE TO MEASURE AND REPORT</p>	
<p>Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria) 1a. High Impact</p>	<p><u>Eval</u> <u>Rating</u></p>
<p>(for NQF staff use) Specific NPP goal:</p>	
<p>1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, Frequently performed procedure, Leading cause of morbidity/mortality, High resource use, Severity of illness, Patient/societal consequences of poor quality 1a.2 1a.3 Summary of Evidence of High Impact: Recognizing the importance of statins including their protean effects as well as lipid lowering effects, patients with bypass conduits have the potential to benefit from antilipid therapy as noted in the references. 1a.4 Citations for Evidence of High Impact: - Campeau L. Lipid Lowering and coronary bypass graft surgery. Curr Opin Cardiol. 2000;15(6):395-399. - Denton TA, Fonarow GC, LaBresh KA, et al. Secondary prevention after coronary bypass: the American Heart Association “Get with the Guidelines” program. Ann Thorac Surg. 2003;75(3):758-760. - Faulkner MA, Wadibia EC, Lucas BD, et al. Impact of pharmacy counseling on compliance and effectiveness of combination lipid-lowering therapy in patients undergoing coronary artery revascularization: a randomized, controlled trial. Pharmacotherapy. 2003;20(4):410-416. - Hunninghake DB. Is aggressive cholesterol control justified? review of the post-coronary artery bypass graft trial. Am J Cardiol. 1998;82(10B):45T-48T. - Welke KF, Ferguson TB, Coombs LP, et al. Validity of the Society of Thoracic Surgeons National Adult Cardiac Surgery Database. Ann Thorac Surg. 2004;77:1137-1139.</p>	<p>1a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>- Shah SJ, Waters DD, Barter P, Kastelein JJP, Shepherd J, Wenger NK, DeMicco DA, Breazna A, LaRosa JC. Intensive Lipid-lowering with Atorvastatin for secondary prevention in patients after coronary artery bypass surgery. J Am Coll Cardiol. 2008; 51(20):1938-1943.</p> <p>- Vaduganathan M, Stone NJ, Lee R, McGee EC, Malaisrie SC, Silverberg RA, McCarthy, PM. Perioperative statin therapy reduces mortality in normolipidemic patients undergoing cardiac surgery. J Thorac Cardiovasc Surg. 2010;140(5):1018-1027.</p>	
<p>1b. Opportunity for Improvement</p> <p>1b.1 Benefits (improvements in quality) envisioned by use of this measure: Expanding the appropriate statin use has the potential to enhance the outcomes for the population of postoperative patients who have risk modification as a part of their care secondary to statin initiation</p> <p>1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers: Please see attachment</p> <p>1b.3 Citations for data on performance gap: Dates: January 1, 2009-December 31, 2009</p> <p>Analysis includes 610 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months.</p> <p>1b.4 Summary of Data on disparities by population group:</p> <p>1b.5 Citations for data on Disparities:</p>	<p>1b</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p>1c. Outcome or Evidence to Support Measure Focus</p> <p>1c.1 Relationship to Outcomes (For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population): Enlarging the population of post operative CAB patients on statins affords a larger patient group benefits of statin therapy</p> <p>1c.2-3. Type of Evidence: Observational study, Expert opinion, Systematic synthesis of research, Other Clinical results from approximately 90% of cardiac surgery centers in the US</p> <p>1c.4 Summary of Evidence (as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome): Expanding the appropriate statin use has the potential to enhance the outcomes for the population of postoperative patients who have risk modification as a part of their care secondary to statin initiation</p> <p>1c.5 Rating of strength/quality of evidence (also provide narrative description of the rating and by whom):</p> <p>1c.6 Method for rating evidence:</p> <p>1c.7 Summary of Controversy/Contradictory Evidence:</p> <p>1c.8 Citations for Evidence (other than guidelines): - Campeau L. Lipid Lowering and coronary bypass graft surgery. Curr Opin Cardiol. 2000;15(6):395-399.</p> <p>- Denton TA, Fonarow GC, LaBresh KA, et al. Secondary prevention after coronary bypass: the American Heart Association “Get with the Guidelines” program. Ann Thorac Surg. 2003;75(3):758-760.</p> <p>- Faulkner MA, Wadibia EC, Lucas BD, et al. Impact of pharmacy counseling on compliance and effectiveness of combination lipid-lowering therapy in patients undergoing coronary artery revascularization: a randomized, controlled trial. Pharmacotherapy. 2003;20(4):410-416.</p> <p>- Hunninghake DB. Is aggressive cholesterol control justified? review of the post-coronary artery</p>	<p>1c</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

<p>bypass graft trial. Am J Cardiol. 1998;82(10B):45T-48T.</p> <ul style="list-style-type: none"> - Welke KF, Ferguson TB, Coombs LP, et al. Validity of the Society of Thoracic Surgeons National Adult Cardiac Surgery Database. Ann Thorac Surg. 2004;77:1137-1139. - Shah SJ, Waters DD, Barter P, Kastelein JJP, Shepherd J, Wenger NK, DeMicco DA, Breazna A, LaRosa JC. Intensive Lipid-lowering with Atorvastatin for secondary prevention in patients after coronary artery bypass surgery. J Am Coll Cardiol. 2008; 51(20):1938-1943. - Vaduganathan M, Stone NJ, Lee R, McGee EC, Malaisrie SC, Silverberg RA, McCarthy,PM. Perioperative statin therapy reduces mortality in normolipidemic patients undergoing cardiac surgery. J Thorac Cardiovasc Surg. 2010;140(5):1018-1027. <p>1c.9 Quote the Specific guideline recommendation (including guideline number and/or page number):</p> <p>1c.10 Clinical Practice Guideline Citation:</p> <p>1c.11 National Guideline Clearinghouse or other URL:</p> <p>1c.12 Rating of strength of recommendation (also provide narrative description of the rating and by whom):</p> <p>1c.13 Method for rating strength of recommendation (If different from USPSTF system, also describe rating and how it relates to USPSTF):</p> <p>1c.14 Rationale for using this guideline over others:</p>	
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Importance to Measure and Report</i>?</p>	1
<p>Steering Committee: Was the threshold criterion, <i>Importance to Measure and Report</i>, met? Rationale:</p>	1 Y <input type="checkbox"/> N <input type="checkbox"/>
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
<p>Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)</p>	Eval Rating
2a. MEASURE SPECIFICATIONS	
<p>S.1 Do you have a web page where current detailed measure specifications can be obtained? S.2 If yes, provide web page URL:</p> <p>2a. Precisely Specified</p>	
<p>2a.1 Numerator Statement (Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome): Number of patients undergoing isolated CABG who were discharged on a statin or other lipid-lowering regimen</p>	
<p>2a.2 Numerator Time Window (The time period in which cases are eligible for inclusion in the numerator):</p>	
<p>2a.3 Numerator Details (All information required to collect/calculate the numerator, including all codes, logic, and definitions): Number of isolated CABG procedures in which discharge lipid lowering medication [DCLipid (STS Adult Cardiac Surgery Database Version 2.73)] is marked "yes"</p>	2a-specs C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
<p>2a.4 Denominator Statement (Brief, text description of the denominator - target population being</p>	

<p>measured): All patients undergoing isolated CABG</p> <p>2a.5 Target population gender: Female, Male 2a.6 Target population age range: 18 yrs and older</p> <p>2a.7 Denominator Time Window (<i>The time period in which cases are eligible for inclusion in the denominator</i>): 12 months</p> <p>2a.8 Denominator Details (<i>All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions</i>): Number of isolated CABG procedures excluding cases with in-hospital mortality or cases for which discharge anti-lipid treatment use was contraindicated.</p> <p>Isolated CABG is determined as a procedure for which all of the following apply:</p> <ul style="list-style-type: none"> - OpCAB is marked "Yes" - (VADProc is marked "No" or "Missing") or (VADProc is marked "Yes, Implanted" and UnplVAD is marked "yes") - OCarASDTy is marked "PFO" or "missing" - OCarAFibAProc is marked "primarily epicardial" or "missing" and - OpValve, VSAV, VSAVPr, ResectSubA, VSMV, VSMVPr, OpTricus, OpPulm, OpONCard, OCarLVA, OCarVSD, OCarSVR, OCarCong, OCarTrma, OCarCrTx, OCAoProcType, EndoProc, OCTumor, OCPulThromDis, OCarOthr are all marked "no" or "missing"
<p>2a.9 Denominator Exclusions (<i>Brief text description of exclusions from the target population</i>): Cases are removed from the denominator if there was an in-hospital mortality or if discharge anti-lipid treatment was contraindicated.</p> <p>2a.10 Denominator Exclusion Details (<i>All information required to collect exclusions to the denominator, including all codes, logic, and definitions</i>): Mortality Discharge Status (MtDCStat), Mortality Date (MtDate), and Discharge Date (DischDt) indicate an in-hospital mortality; DCLipid is marked as "Contraindicated"</p>
<p>2a.11 Stratification Details/Variables (<i>All information required to stratify the measure including the stratification variables, all codes, logic, and definitions</i>):</p>
<p>2a.12-13 Risk Adjustment Type: No risk adjustment necessary</p> <p>2a.14 Risk Adjustment Methodology/Variables (<i>List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method</i>):</p>
<p>2a.15-17 Detailed risk model available Web page URL or attachment:</p>
<p>2a.18-19 Type of Score: Rate/proportion 2a.20 Interpretation of Score: Better quality = Higher score 2a.21 Calculation Algorithm (<i>Describe the calculation of the measure as a flowchart or series of steps</i>):</p>
<p>2a.22 Describe the method for discriminating performance (<i>e.g., significance testing</i>): Two-sided 95% binomial confidence intervals; a confidence interval is calculated for each database participant. If the overall STS database result falls within the participant's 95% binomial confidence interval, the participant's performance is considered not significantly different from the overall database result. If the overall STS database result falls to the right of the participant's 95% binomial confidence interval, then the participant's performance is considered significantly lower than the overall database results. If the overall STS database result falls to the left of the participant's 95% binomial confidence interval, then the participant's performance is considered significantly higher than the overall database results.</p>

2a.23 Sampling (Survey) Methodology *If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):*

2a.24 Data Source *(Check the source(s) for which the measure is specified and tested)*
Registry data

2a.25 Data source/data collection instrument *(Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.):*
STS Adult Cardiac Surgery Database - Version 2.73

2a.26-28 Data source/data collection instrument reference web page URL or attachment: URL Data Collection Form (an updated version will be made available on the STS Website in mid-January 2011 --- http://www.sts.org/documents/pdf/ndb2010/STSAultCVDDataCollectionForm2_7_Annotated_20101021.pdf

2a.29-31 Data dictionary/code table web page URL or attachment: URL http://www.sts.org/documents/pdf/ndb2010/STSAultCVDDataSpecificationsV2_7_20101021.pdf -- an updated version will be made available on the STS Website in mid-January 2011

2a.32-35 Level of Measurement/Analysis *(Check the level(s) for which the measure is specified and tested)*
Clinicians: Group, Facility/Agency, Population: national, Population: regional/network, Population: states, Population: counties or cities

2a.36-37 Care Settings *(Check the setting(s) for which the measure is specified and tested)*
Hospital

2a.38-41 Clinical Services *(Healthcare services being measured, check all that apply)*
Clinicians: Physicians (MD/DO)

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size):* STS Adult Cardiac Surgery Database - Compared results between two proximate time periods: January 2008-December 2008 and January 2009-December 2009.

2b.2 Analytic Method *(type of reliability & rationale, method for testing):*
Compared results between two proximate time periods: January 2008-December 2008 and January 2009-December 2009. Excluded from analysis are participants that did not submit results for both time periods. Because database participants can change their underlying care processes at any time, we would not expect perfect correlation between two sets of results from even proximate time periods.

2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted):*
Please see attachment

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2c. Validity testing

2c.1 Data/sample *(description of data/sample and size):* STS Adult Cardiac Surgery Database

Audits conducted in 2010, all cases performed in 2009; N = 40 randomly selected sites participating in the STS Adult Cardiac Surgery Database

2c.2 Analytic Method *(type of validity & rationale, method for testing):*
Participating sites are randomly selected for participation in STS Adult Cardiac Surgery Database Audit, which is designed to evaluate the accuracy, consistency, and comprehensiveness of data collection and ultimately validate the integrity of the data contained in the database. The Iowa Foundation for Medical Care (IFMC), the quality improvement organization for Iowa and Illinois, has conducted audits on behalf of

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<p>STS since 2006.</p> <p>Each year, the IFMC conducts audits at randomly selected sites throughout the country and tracks the individual agreement rates by variable and by year. More specifically, for each site, agreement rates are calculated for 73 individual elements. In addition, aggregate agreement rates for each element, variable category (e.g., pre-operative risk factors, previous interventions, etc), and overall for all categories are calculated for all sites. While this is not region specific, it is data point specific and comparison agreement rates confirm the improvement over time as well as the consistency.</p> <p>2c.3 Testing Results (<i>statistical results, assessment of adequacy in the context of norms for the test conducted</i>): Lipid Lowering Medications at Discharge: 96.5% agreement rate</p>	
<p>2d. Exclusions Justified</p> <p>2d.1 Summary of Evidence supporting exclusion(s):</p> <p>2d.2 Citations for Evidence:</p> <p>2d.3 Data/sample (<i>description of data/sample and size</i>): January 1, 2009-December 31, 2009; 628 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months. Patients with contraindications to the medication are excluded from this NQF measure.</p> <p>2d.4 Analytic Method (<i>type analysis & rationale</i>):</p> <p>2d.5 Testing Results (<i>e.g., frequency, variability, sensitivity analyses</i>): Please see attachment</p>	<p>2d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2e. Risk Adjustment for Outcomes/ Resource Use Measures</p> <p>2e.1 Data/sample (<i>description of data/sample and size</i>): n/a</p> <p>2e.2 Analytic Method (<i>type of risk adjustment, analysis, & rationale</i>):</p> <p>2e.3 Testing Results (<i>risk model performance metrics</i>):</p> <p>2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:</p>	<p>2e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2f. Identification of Meaningful Differences in Performance</p> <p>2f.1 Data/sample from Testing or Current Use (<i>description of data/sample and size</i>): 610 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months; January 1, 2009-December 31, 2009</p> <p>2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance (<i>type of analysis & rationale</i>): Two-sided 95% binomial confidence intervals; a confidence interval is calculated for each database participant. If the overall STS database result falls within the participant's 95% binomial confidence interval, the participant's performance is considered not significantly different from the overall database result. If the overall STS database result falls to the right of the participant's 95% binomial confidence interval, then the participant's performance is considered significantly lower than the overall database results. If the overall STS database result falls to the left of the participant's 95% binomial confidence interval, then the participant's performance is considered significantly higher than the overall database results.</p>	<p>2f C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>2f.3 Provide Measure Scores from Testing or Current Use (<i>description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance</i>): Please see attachment</p>	
<p>2g. Comparability of Multiple Data Sources/Methods</p> <p>2g.1 Data/sample (<i>description of data/sample and size</i>):</p> <p>2g.2 Analytic Method (<i>type of analysis & rationale</i>):</p> <p>2g.3 Testing Results (<i>e.g., correlation statistics, comparison of rankings</i>):</p>	<p>2g</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p>2h. Disparities in Care</p> <p>2h.1 If measure is stratified, provide stratified results (<i>scores by stratified categories/cohorts</i>):</p> <p>2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:</p>	<p>2h</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Scientific Acceptability of Measure Properties</i>?</p>	<p>2</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Scientific Acceptability of Measure Properties</i>, met? Rationale:</p>	<p>2</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p>3. USABILITY</p>	
<p>Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>3a. Meaningful, Understandable, and Useful Information</p> <p>3a.1 Current Use: In use</p> <p>3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large) (<i>If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years</i>): This measure is one of eleven component measures of the STS CABG Composite Score. Composite star ratings are presented in the health section of the Consumers Union website, www.ConsumerReportsHealth.org</p> <p>Currently, there are 221 STS Adult Cardiac Surgery Database participating hospitals who voluntarily participate in this initiative.</p> <p>3a.3 If used in other programs/initiatives (<i>If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years</i>): CMS Physician Quality Reporting Initiative (PQRI), www.cms.hhs.gov/pqri</p> <p>Testing of Interpretability (<i>Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement</i>)</p> <p>3a.4 Data/sample (<i>description of data/sample and size</i>): See 3a.6 below</p> <p>3a.5 Methods (<i>e.g., focus group, survey, QI project</i>):</p>	<p>3a</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

<p>3a.6 Results (<i>qualitative and/or quantitative results and conclusions</i>): Please see attachment</p>	
<p>3b/3c. Relation to other NQF-endorsed measures</p> <p>3b.1 NQF # and Title of similar or related measures: OT1-013-09 - The STS CABG Composite Score; Component measures: 0114 Risk-Adjusted Post-Operative Renal Failure, 0115 Risk-Adjusted Surgical Re-exploration, 0116 Anti-Platelet Medication at Discharge, 0117 Beta Blockade at Discharge, 0118 Anti-Lipid Treatment at Discharge, 0119 Risk-Adjusted Operative Mortality for CABG, 0127 Pre-Operative Beta Blockade, 0129 Risk-Adjusted Prolonged Intubation (ventilation), 0130 Risk-Adjusted Deep Sternal Wound Infection Rate, 0131 Risk-Adjusted Stroke/Cerebrovascular Accident, 0134 Use of Internal Mammary Artery (IMA) in Coronary Artery Bypass Graft (CABG)</p>	
<p>(for NQF staff use) Notes on similar/related <u>endorsed</u> or submitted measures:</p>	
<p>3b. Harmonization If this measure is related to measure(s) already <u>endorsed by NQF</u> (e.g., same topic, but different target population/setting/data source <u>or</u> different topic but same target population):</p> <p>3b.2 Are the measure specifications harmonized? If not, why? N/A; however, data definitions and key elements have been established by a multi-societal writing committee called the “ACCF/AHA Writing Committee to Develop Acute Coronary Syndromes and Coronary Artery Disease Clinical Data Standards” with representatives from each of the following organizations:</p> <p>Agency for Healthcare Research and Quality American College of Cardiology American College of Chest Physicians American College of Emergency Physicians American College of Physicians American College of Preventative Medicine American Heart Association American Medical Association Centers for Disease Control and Prevention Emergency Nurses Association Food and Drug Administration Joint Commission on Accreditation of Healthcare Organizations National Association of Emergency Medical Technicians National Association of EMS Physicians National Heart, Lung, and Blood Institute Preventive Cardiovascular Nurses Association Society for Academic Emergency Medicine Society of Chest Pain Centers and Providers Society of General Internal Medicine Society of Thoracic Surgeons</p>	<p>3b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>3c. Distinctive or Additive Value 3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:</p> <p>5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:</p>	<p>3c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Usability</i>?</p>	<p>3</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Usability</i>, met? Rationale:</p>	<p>3 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/></p>

	N <input type="checkbox"/>
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes	
<p>4a.1-2 How are the data elements that are needed to compute measure scores generated? Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)</p>	4a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
4b. Electronic Sources	
<p>4b.1 Are all the data elements available electronically? (<i>elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims</i>) Yes</p> <p>4b.2 If not, specify the near-term path to achieve electronic capture by most providers.</p>	4b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
4c. Exclusions	
<p>4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications? No</p> <p>4c.2 If yes, provide justification.</p>	4c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences	
<p>4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results. This measure may be susceptible to human error (i.e., recording the measure inaccurately or not at all).</p> <p>When data collection on this measure is done through participation in the STS Adult Cardiac Surgery Database, an auditing strategy is in place.</p> <p>Both STS and the Duke Clinical Research Institute have a list of database participants making participation in the STS Adult Cardiac Surgery Database easy to track.</p> <p>Each participant is responsible for the quality and accuracy of the data they submit to the database. The participant agrees to the following quality control measures in the participation agreement: i) Participant hereby warrants that all data submitted for inclusion in the STS National Database will be accurate and complete, and acknowledges that such data may be subject to independent audit. Participant will use its best efforts to address any data or related deficiencies identified by the independent data warehouse service provider and agrees to cooperate with and assist STS and its designees in connection with the performance of any independent audit.</p> <p>ii) Participant warrants that it will take all reasonable steps to avoid the submission of duplicative data for inclusion in the STS National Database, including but not limited to apprising the Director of the STS National Database and the independent data warehouse service provider about any other Participation Agreements in which an individual cardiothoracic surgeon named above or on Schedule A attached hereto (as amended from time to time) is also named.</p> <p>STS audited for these potential problems during testing. Please see IFMC audit results.</p>	4d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
4e. Data Collection Strategy/Implementation	4e

<p>4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:</p> <p>4e.2 Costs to implement the measure (<i>costs of data collection, fees associated with proprietary measures</i>): Data Collection: There are no direct costs to collect the data for this measure. Costs to develop the measure included volunteer cardiothoracic time, STS staff time, and DCRI statistician and project management time.</p> <p>Other fees: STS Adult Cardiac Surgery Database participants (single cardiothoracic surgeons or a group of surgeons) pay annual participant fees of \$2,950 or \$3,700, depending on whether participants are STS members (or whether the majority of surgeons in a group are STS members). As a benefit of STS membership, STS members are charged the lesser of the two fees.</p> <p>4e.3 Evidence for costs:</p> <p>4e.4 Business case documentation:</p>	C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Feasibility</i>?</p>	4
<p>Steering Committee: Overall, to what extent was the criterion, <i>Feasibility</i>, met? Rationale:</p>	4 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
RECOMMENDATION	
<p>(for NQF staff use) Check if measure is untested and only eligible for time-limited endorsement.</p>	Time-limited <input type="checkbox"/>
<p>Steering Committee: Do you recommend for endorsement? Comments:</p>	Y <input type="checkbox"/> N <input type="checkbox"/> A <input type="checkbox"/>
CONTACT INFORMATION	
<p>Co.1 Measure Steward (Intellectual Property Owner) Co.1 <u>Organization</u> Society of Thoracic Surgeons, 633 North Saint Clair Street, Suite 2320, Chicago, Illinois, 60611</p> <p>Co.2 <u>Point of Contact</u> Jane, Han, MSW, jhan@sts.org, 312-202-5856-</p>	
<p>Measure Developer If different from Measure Steward Co.3 <u>Organization</u> Society of Thoracic Surgeons, 633 North Saint Clair Street, Suite 2320, Chicago, Illinois, 60611</p> <p>Co.4 <u>Point of Contact</u> Jane, Han, MSW, jhan@sts.org, 312-202-5856-</p>	
<p>Co.5 Submitter If different from Measure Steward POC Jane, Han, MSW, jhan@sts.org, 312-202-5856-, Society of Thoracic Surgeons</p>	
<p>Co.6 Additional organizations that sponsored/participated in measure development</p>	

ADDITIONAL INFORMATION
<p>Workgroup/Expert Panel involved in measure development Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development. Members of the STS Task Force on Quality Initiatives provide clinical expertise as needed. The STS Workforce on National Databases meets at the STS Annual Meeting and reviews the measures on a yearly basis. Changes or updates to the measure will be at the recommendation of the Workforce.</p>
<p>Ad.2 If adapted, provide name of original measure: Ad.3-5 If adapted, provide original specifications URL or attachment</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance Ad.6 Year the measure was first released: 2004 Ad.7 Month and Year of most recent revision: 12, 2010 Ad.8 What is your frequency for review/update of this measure? annually Ad.9 When is the next scheduled review/update for this measure? 2011</p>
<p>Ad.10 Copyright statement/disclaimers:</p>
<p>Ad.11 -13 Additional Information web page URL or attachment: Attachment 0118 Sections 1b.2, 2b.3, 2d.5, 2f.3, 3a.6.pdf</p>
<p>Date of Submission (MM/DD/YY): 01/12/2011</p>

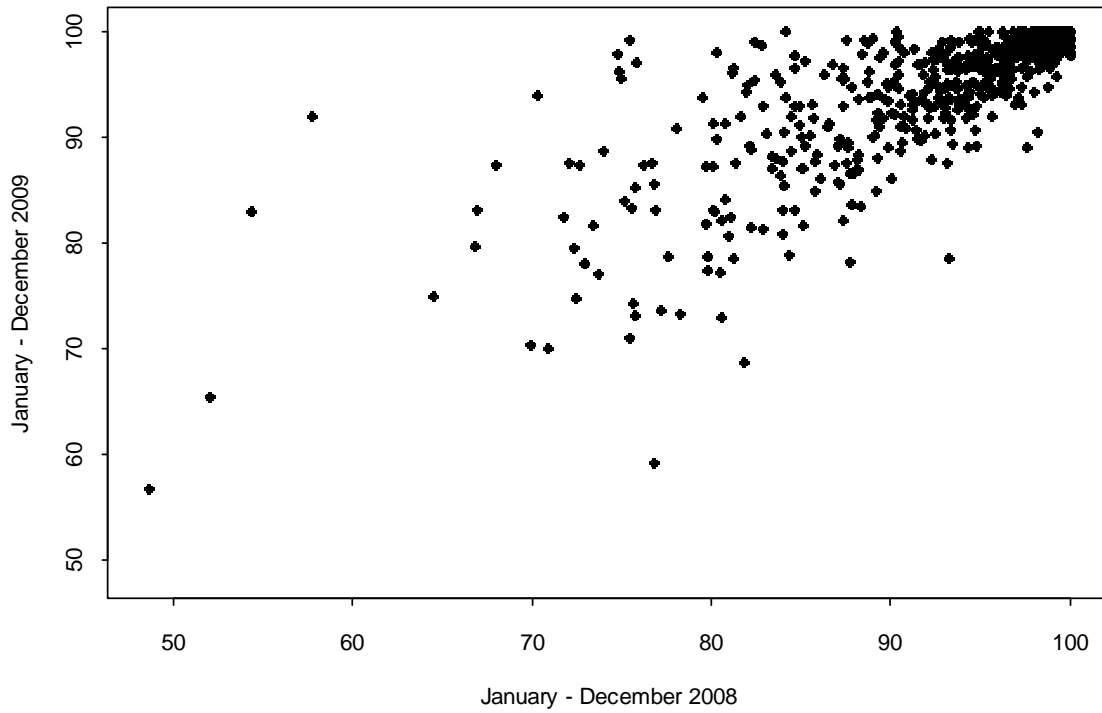
1b.2. Summary of Measure Results Demonstrating Performance Gap (*Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*)

<i>Measurement</i>	<i>Anti-lipid Treatment at Discharge</i>
N	610
Mean	93.8%
1 st	69.7%
5 th	80.7%
10 th	85.0%
25 th	91.4%
Median	96.2%
75 th	98.5%
90 th	99.7%
95 th	100.0%
99 th	100.0%
Outlier	360 (59.0%)
High	226
Low	134

2b.3. Testing Results (*Reliability statistics, assessment of adequacy in the context of norms for the test conducted*)

Testing results: $\rho = 0.76$

Anti-lipid Treatment at Discharge ($\rho=0.76$)

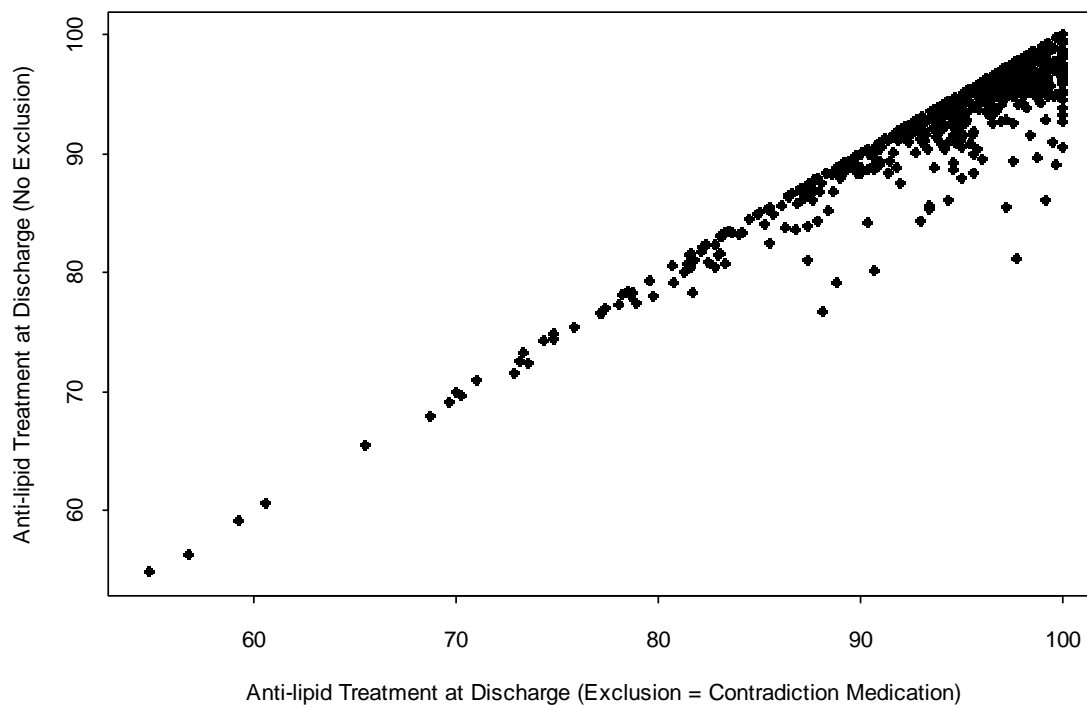


2d.5. Testing Results (E.g., frequency, variability, sensitivity analyses)

Anti-lipid Treatment
at Discharge

# of Patients	140573
# excluded	2477
% excluded	0.02

Anti-lipid Treatment at Discharge ($\rho=0.89$)



2f.3. Measure Scores from Testing or Current Use (*Description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance*)

Results below are from January 1, 2009-December 31, 2009. The sample contains 610 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months.

<i>Measurement</i>	<i>Anti-lipid Treatment at Discharge</i>
N	610
Mean	93.8%
1 st	69.7%
5 th	80.7%
10 th	85.0%
25 th	91.4%
Median	96.2%
75 th	98.5%
90 th	99.7%
95 th	100.0%
99 th	100.0%
Outlier†	360 (59.0%)
High	226
Low	134

†Represents the number of participants that are outliers according to two-sided 95% binomial confidence interval.

3a.6. Results (Qualitative or quantitative results and conclusions)

Although formal testing of interpretability has not been performed, this measure has been used and reported for STS Adult Cardiac Surgery database participants since 2007. Current report presentation and interpretation manuals are presented below. These materials are updated as needed based upon feedback from database participants.

1) Report Overview and Interpretation Manual:

The NQF Measures Report

a. Organization

This report section is separated into three areas corresponding to: 1) NQF volume measures, 2) NQF process measures, and 3) NQF outcomes measures, in that order. The header at the top of each page references the report section for that page. Each NQF measure is presented on a single row in the section. Tabular data are on the left-hand side of each page and a standard graphic representation is shown on the right-hand side.

b. Statistical Calculation and Details – NQF Measures

Time period: This report section contains information on the individual STS participant and overall STS performance for the most recent 12 months for volume, process and CABG outcomes measures and the most recent 60 months for Valve and Valve + CABG outcomes. The 5 years (60 months) of performance for outcomes involving Valve procedures is necessary due to smaller sample sizes.

Volume Measures: The NQF report provides average annual case volumes data for three surgery categories: i) Isolated CABG, ii) Valve without CABG, and iii) combined CABG + Valve. Definitions of the three surgery categories are provided in Table 2 of this NQF Report Overview. For each type of surgery, the participant's annualized volume is calculated as:

$$\text{Participant Annualized Volume} = 12 \times (\# \text{ of surgeries}) / (\# \text{ of months})$$

where (# of surgeries) denotes the number of surgeries of the specified type performed by the participant during the specified time period, and (# of months) is the number of months during the specified time period for which the participant submitted at least one cardiac surgery of any type. The intent of calculating “annualized” volumes is to adjust for participants who participated in the database for fewer months than the time period specified. For participants who participated in the database and submitted cases every month during 2006, the annualized volume for 2006 is simply the total number of cases.

The STS Average Annualized Volume is the average value of all of the participant annualized volumes across the entire population of STS participants. The Participant Percentile indicates the percent of STS participants whose annualized volumes are less than, or equal to, your own. Higher percentiles indicate higher volumes in relation to other STS participant sites. The Distribution of Participant Values shows the range and percentiles of the distribution of participant annualized volumes across all database participants. For example, 90% of participants have annualized volumes less than or equal to the value marked “90th percentile.” Confidence intervals are not provided for volume measures, as volume is known with certainty and is not estimated.

Process Measures: The NQF process measures provide data on the frequency of usage of five therapies among subsets of Isolated CABG patients. The therapies are: i) preoperative beta blockade therapy, ii) use of IMA, iii) discharge anti-platelet medication, iv) discharge beta blockade therapy, and v) discharge anti-lipid medication. The patient population for each measure differs, in accordance with the NQF specifications (see Table 2 of this NQF Report Overview for details). The number of Eligible

Procedures is the number of cases performed by the participant during the specified time period who meet the eligibility requirements to be included in the calculations when summarizing the participant's data. ***Beginning with the 2008 Harvest 3 report (covering the procedure time period through 6/30/2008), STS implementation of NQF medication process measures using data version 2.61 excludes records for which the medication was contraindicated/not indicated from the eligible population.*** The main summary statistic, Participant Usage, is the percent of eligible Isolated CABG cases during the specified time period for which the patient received the specified therapy. The Overall STS Usage is the percent of all eligible patients in the entire STS population during the specified time period who received the specified therapy. ***In calculating these percentages, missing data are treated as a "No", emphasizing the importance of having complete data in these fields.***

The Participant Percentile indicates the percent of STS participants who applied the therapy in their respective populations less frequently than or as frequently as did your institution. The Distribution of Participant Values shows the range and percentiles of the distribution of participant usage across all participants in the database. For example, 90% of participants use the therapy less frequently than the amount indicated by the "90th percentile". A bar identified as "Participant" indicates the point estimate and limits of a 95% Confidence Interval (CI) for the participant's usage of therapy. The underlying parameter being estimated is the long-run usage rate that would be observed in a large sample of patients. The 95% CI indicates the range of usage rates that are consistent with the data in light of sampling variability.

Outcomes Measures: The NQF outcomes data provide risk-adjusted analyses of mortality and morbidity for Isolated CABG surgery as well as risk-adjusted operative mortality for Isolated AVR, Isolated MVR, AVR+CABG, and MVR+CABG. The main summary statistic provided is the Participant's Estimated Odds Ratio (OR) based on a hierarchical logistic regression analysis. The OR measures the impact that a participant's performance level has on a patient's probability of experiencing an adverse outcome. The interpretation is similar to that of an O/E ratio (see the Risk-Adjusted Results: Overview portion of the General Report Overview for details on STS risk adjustment). An OR greater than 1.0 implies that the participant increases a patient's risk of experiencing the outcome, relative to an "average" STS participant. An OR less than 1.0 implies that the participant decreases a patient's risk of experiencing the outcome, relative to an "average" STS participant. Each measure is calculated among patients undergoing surgery of the type specified during the time period specified who additionally meet certain eligibility requirements. The column labeled Eligible Procedures indicates the number of patients who met the inclusion criteria to be included in the analysis for the indicated measure. The Participant Percentile is the percent of STS participants who have an estimated OR that is greater than or equal to your estimated OR. Note that this is different than performance percentiles for process measures, where the percentile indicates the percentage of STS participants with performance that is *less than* the specified number. This simply reflects the fact that high process compliance is desirable, whereas a high OR is undesirable.

The Observed Participant Rate is the percent of eligible patients who experienced the specified outcome. Unlike the participant estimated OR, the observed participant rate is not risk-adjusted. The estimated OR is the main summary statistic for summarizing the NQF measure in this report.

The Distribution of Participant Values shows the range and percentiles of the distribution of estimated Odds Ratios across all STS participants. For example, 90% of STS participants have an OR greater than the value indicated by the "90th percentile." The line that extends to the left and right of the Participant Value indicates the lower and upper limits of a 95% Confidence Interval (CI) surrounding the participant's estimated OR.

c. Technical Notes

Calculation of Percentiles for the Distribution of Participant Values: The graph provided for each measure contains information about the distribution of the value of the measure across all STS

participants, namely the minimum, maximum, 10th percentile, 50th percentile, and 90th percentile. The “Xth” percentile, denoted P_x , is loosely defined as the number having the property that X% of the participant values are less than P_x , and (100 – X)% of the participant values are greater than P_x . **For process measures, participants with greater than 5% missing data were excluded when calculating percentiles of the STS distribution and do not have a calculated participant percentile.** For participants having less than 5% missing data on a process measure, the missing values on the process measure were converted to “No” before calculating percentiles. For outcomes measures, all participants submitting at least one eligible case were included when calculating percentiles of the STS distribution. Missing data on outcomes variables were treated as “No.”

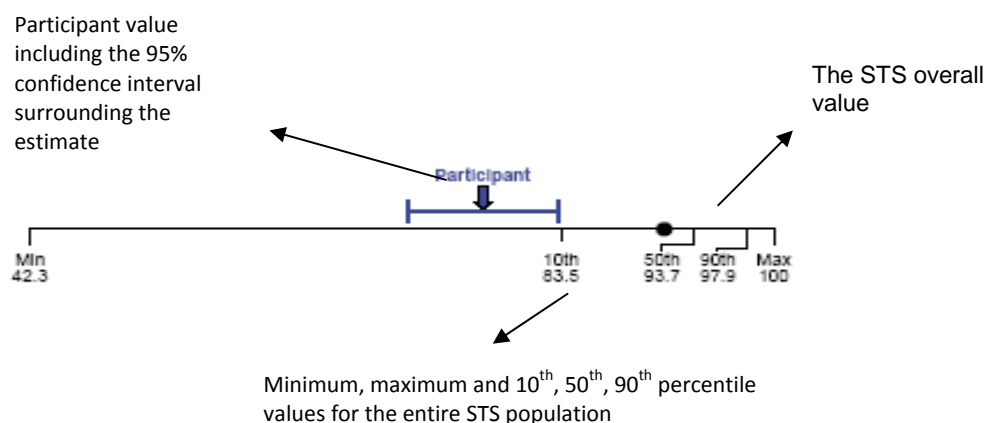
NQF/STS Results Comparison: Participants may see some differences between summaries of their data provided in the NQF section of the report and summaries of their data reported elsewhere in the STS report. These differences are due to subtle variations in variable definitions, patient inclusion and exclusion criteria, and rules for handling missing data in the NQF section versus the rest of the report. Definitions used in the NQF report were designed to match current NQF specifications as closely as possible. It is expected that these differences will eventually disappear as the NQF measures are refined. Some important differences are:

Case Volumes – The NQF report section presents “annualized” volumes. These are case volumes that have been adjusted for the number of months that a participant was an active contributor to the database. Elsewhere in the STS report, total case volumes are presented without adjustment for the length of participation.

Eligible Cases - The NQF report also presents the number of “eligible cases” for each measure. Separate inclusion criteria are applied to each measure, and these inclusion criteria do not always match the definitions used elsewhere in the STS report. Please refer to the footnotes in each section for specific details.

Interpretation Manual

In addition to the statistics provided for each of the STS Composite Quality Domains and NQF measures, a figure representing the distribution of values for the entire STS population is provided.



The figure allows participants to quickly judge their performance relative to the overall STS. The scale of the figure is set up such that the right side of the distribution represents the most favorable performance and the left side represents the least favorable performance (Note that in some cases smaller numbers will be on the left; in other instances, smaller numbers will be on the right. For example, for the Pre-operative Beta Blockade Therapy measure, the far left side of the distribution will contain the *lowest* percentage Beta Blockade Therapy for an STS participant – this corresponds to least

favorable performance. Alternatively, for the Operative Mortality Measure, the far left side of the distribution will contain the *highest* Estimated Odds Ratio – this also corresponds to least favorable performance). If a participant’s value for a given measure is to the left of the STS overall value, the participant is performing worse on that measure than the overall STS. Conversely, if the participant’s value for a given measure is located to the right of the overall STS value, the participant is performing better than the overall STS.

NOTE! Care should be given to reading these figures. In some instances, the various percentiles presented cluster very close together in the data. In such cases, the label for the percentile is not necessarily located immediately at the point on the distribution where the percentile occurs. An example of this is apparent in the figure above: The 50th percentile corresponds to a value of 93.7 and looks to align fairly closely with the STS overall value as represented by the large black dot. However, the expandable figure marking actually points to a place somewhere to the right of the STS overall value for the 50th percentile marking. So the STS overall value would be some amount less than 93.7.

Also, please note that in some cases, small sample sizes preclude valid comparisons between the participant and the STS overall. Such instances are clearly noted in the report output.

a. NQF Measures Interpretation Example

Sample CABG Operative Mortality results – tabular and figure representation.

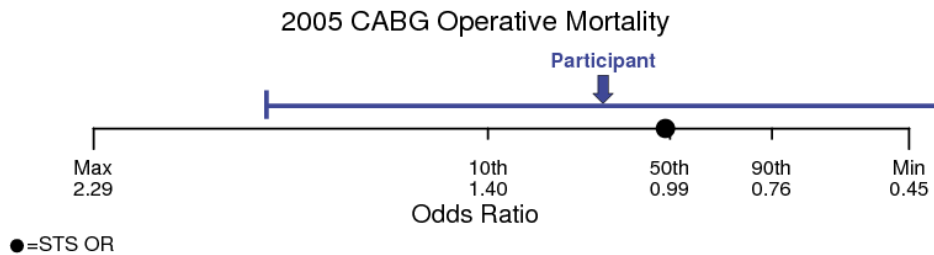
NQF Measure	Eligible Procedures	Participant Estimated OR	Participant Percentile	Participant Observed Rate
2005 CABG Operative Mortality	74	1.14	26.3	5.4%

Eligible Procedures: 74 patients met the inclusion criteria for the indicated measure.

Participant Estimated OR (Odds Ratio): The main summary statistic measuring the impact that a participant’s performance has on a patient’s probability of experiencing an adverse outcome has a value of 1.14 indicating worse than expected performance.

Participant Percentile: 26.3% of STS participants had an estimated OR greater than or equal to your estimated OR. In other words, 26.3% had the same or worse performance.

Participant Observed Rate: 5.4% of the 74 eligible patients experienced the specified outcome.



The highest OR among all STS participants = 2.29
 The lowest OR among all STS participants = 0.45
 The STS average OR is 1.00

The 95% confidence interval for the participant's OR spans from <0.45 to ~1.90

2) Sample page from section of the report that contains NQF measure results:



**NQF Measures
Process Measures
Participant 99999
STS Period Ending 12/31/2008**



NQF Measure	Eligible Procedures	Participant Usage (95% CI)	Participant Percentile	Overall STS Usage	Distribution of Participant Values ● = Overall STS Usage
Jan 2008 - Dec 2008 Preoperative Beta Blockade Therapy ¹	541	89.3% (86.4 , 91.8)	69.9	82.1%	
Jan 2008 - Dec 2008 Use of IMA ²	536	96.5% (94.5 , 97.9)	63.3	94.2%	
Jan 2008 - Dec 2008 Discharge Anti-Platelet Medication ³	536	98.7% (97.3 , 99.5)	68.7	96.1%	
Jan 2008 - Dec 2008 Discharge Beta Blockade Therapy ⁴	538	96.1% (94.1 , 97.6)	53.4	93.7%	
Jan 2008 - Dec 2008 Discharge Anti-Lipid Treatment ⁴	535	91.8% (89.1 , 94.0)	40.7	91.4%	

¹Excludes v2.61 contraindicated / not indicated records.

²Excludes patients with prior CABG surgery

³Anti-platelet use includes Aspirin and ADP Inhibitors, and excludes in-hospital mortalities. Excludes v2.61 contraindicated / not indicated records.

⁴Excludes in-hospital mortalities. Excludes v2.61 contraindicated / not indicated records.

NATIONAL QUALITY FORUM

Measure Evaluation 4.1 December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the [evaluation criteria](#) are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all **yellow highlighted** areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all **pink** highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met

C = Completely (unquestionably demonstrated to meet the criterion)

P = Partially (demonstrated to partially meet the criterion)

M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)

N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)

NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) NQF Review #: 0130		NQF Project: Surgery Endorsement Maintenance 2010	
MEASURE DESCRIPTIVE INFORMATION			
De.1 Measure Title: Risk-Adjusted Deep Sternal Wound Infection Rate			
De.2 Brief description of measure: Percent of patients aged 18 years and older undergoing isolated CABG who, within 30 days postoperatively, develop deep sternal wound infection involving muscle, bone, and/or mediastinum requiring operative intervention			
1.1-2 Type of Measure: Outcome			
De.3 If included in a composite or paired with another measure, please identify composite or paired measure OT1-013-09 - The STS CABG Composite Score			
De.4 National Priority Partners Priority Area: Safety			
De.5 IOM Quality Domain: Safety			
De.6 Consumer Care Need: Getting better			

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
<p>A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. <i>Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.</i></p> <p>A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)? Yes</p> <p>A.2 Indicate if Proprietary Measure (as defined in measure steward agreement):</p> <p>A.3 Measure Steward Agreement: Agreement will be signed and submitted prior to or at the time of measure submission</p> <p>A.4 Measure Steward Agreement attached: STS Measure Steward Agreement. Fully Executed-634282055657259606.pdf</p>	<p>A</p> <p>Y <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

<p>B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section</p>	<p>B Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ► Purpose: Public reporting, Internal quality improvement</p>	<p>C Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1 Testing: Yes, fully developed and tested D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures? Yes</p>	<p>D Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>(for NQF staff use) Have all conditions for consideration been met? Staff Notes to Steward (if submission returned):</p>	<p>Met Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>Staff Notes to Reviewers (issues or questions regarding any criteria):</p>	
<p>Staff Reviewer Name(s):</p>	

<p>TAP/Workgroup Reviewer Name:</p>	
<p>Steering Committee Reviewer Name:</p>	
<p>1. IMPORTANCE TO MEASURE AND REPORT</p>	
<p>Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria) 1a. High Impact</p>	<p><u>Eval</u> <u>Rating</u></p>
<p>(for NQF staff use) Specific NPP goal:</p>	
<p>1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, Frequently performed procedure, Leading cause of morbidity/mortality, High resource use, Severity of illness, Patient/societal consequences of poor quality 1a.2 1a.3 Summary of Evidence of High Impact: Deep sternal wound infection rate is an essential quality measure for isolated CAB patients because it represents the overall competence and conscientiousness of the CV surgery team. Nearly all CAB cases are classified as “clean” because the only source of bacterial contamination is the patient and the surgical team. Measures shown to prevent surgical wound infections are skin decontamination, appropriate prophylactic antibiotic administration (both type and timing of administration) and glycemic control. Furthermore, deep sternal wound infection is a significant complication of CAB that carries a high mortality rate, requires further surgery and prolonged IV antibiotics for treatment. 1a.4 Citations for Evidence of High Impact: - Braxton JH, Marrin CA, et al. Mediastinitis and long-term survival after coronary artery bypass graft surgery. Ann Thorac Surg. 2000;70:2004-2007. - Hollenbeck CS, Murphy DM, et al. The clinical and economic impact of deep chest surgical site infections following coronary artery bypass surgery. Chest. 2000;118:397-402. - Olsen MA, Lock-Buckley P, et al. The risk factors for deep and superficial chest surgical site infections after coronary artery bypass graft surgery are different. J Thorac Cardiovasc Surg. 2002;124:136-</p>	<p>1a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>145.</p> <ul style="list-style-type: none"> - Shroyer AL, Coombs LP, Peterson ED, et al. The Society of Thoracic Surgeons: 30-day operative mortality and morbidity risk models. <i>Ann Thorac Surg.</i> 2003;75:1856-1865. - Trick WE, Scheckler WE, et al. Modifiable risk factors associated with deep sternal site infection after coronary artery bypass grafting. <i>J Thorac Cardiovasc Surg.</i> 2000;119:108-114. - Welke KF, Ferguson TB, Coombs LP, et al. Validity of the Society of Thoracic Surgeons National Adult Cardiac Surgery Database. <i>Ann Thorac Surg.</i> 2004;77:1137-1139. - Edwards FH, Engelman RM, Houck P et al. The Society of Thoracic Surgeons Practice Guideline Series: Antibiotic Prophylaxis in Cardiac Surgery, Part I: Duration. <i>Ann Thorac Surg</i> 2006; 81: 397 - 404, - Wilson APL, Gibbons C, Reeves BC, et al. Surgical wound infection as a performance indicator: agreement of common definitions of wound infection in 4773 patients. <i>BMJ</i> 2004; 329: 720 - 24. 	
<p>1b. Opportunity for Improvement</p> <p>1b.1 Benefits (improvements in quality) envisioned by use of this measure: Monitoring 30-day deep sternal wound infection rates in CAB only patients is a necessary parameter for judging the overall surgical quality of participating programs. Continuous vigilance and improvement in surgical care processes is assured by public reporting of this outcome.</p> <p>1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers: Please see attachment</p> <p>1b.3 Citations for data on performance gap: Dates: January 1, 2009-December 31, 2009</p> <p>Analysis includes 640 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data (not restricted to this measure) to the STS Adult Cardiac Surgery Database for all 12 months</p> <p>1b.4 Summary of Data on disparities by population group:</p> <p>1b.5 Citations for data on Disparities:</p>	<p>1b</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p>1c. Outcome or Evidence to Support Measure Focus</p> <p>1c.1 Relationship to Outcomes (For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population): Deep sternal wound infection rate is a relevant quality parameter because it is a major source of morbidity and mortality for the CAB population. Next to stroke and death, it is the third most important performance metric for a cardiac surgery program. The risk-adjusted sternal infection rate corrects for patient and population factors that independently increase the incidence of infection among patients who are immunosuppressed or have a genetic predilection to higher infection rates.</p> <p>1c.2-3. Type of Evidence: Observational study, Expert opinion, Systematic synthesis of research, Other Clinical results from approximately 90% of cardiac surgery centers in the US</p> <p>1c.4 Summary of Evidence (as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome): Care processes that influence the incidence of sternal infection span the first 3 major phases of surgical care. In the pre-operative phase, routine patient decontamination and identification of active infections are key elements. In the intra-operative phase, impeccable surgical aseptic technique and timing of antibiotic administration are key processes. In the post-operative phase, aseptic wound care and detection of early wound inflammation are important in aborting delayed contamination.</p> <p>1c.5 Rating of strength/quality of evidence (also provide narrative description of the rating and by whom):</p>	<p>1c</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

<p>There are a variety of recent papers in the surgical literature that separately or collectively analyze the patient care factors affecting the outcome of deep sternal wound infection. As an aggregate the evidence is class IIA because prospective randomized patient studies do not routinely reach a level of statistical significance and therefore do not meet class I requirements.</p> <p>1c.6 Method for rating evidence: Standard investigational study rating system.</p> <p>1c.7 Summary of Controversy/Contradictory Evidence:</p> <p>1c.8 Citations for Evidence (other than guidelines): - Braxton JH, Marrin CA, et al. Mediastinitis and long-term survival after coronary artery bypass graft surgery. <i>Ann Thorac Surg.</i> 2000;70:2004-2007. - Hollenbeck CS, Murphy DM, et al. The clinical and economic impact of deep chest surgical site infections following coronary artery bypass surgery. <i>Chest.</i> 2000;118:397-402. - Olsen MA, Lock-Buckley P, et al. The risk factors for deep and superficial chest surgical site infections after coronary artery bypass graft surgery are different. <i>J Thorac Cardiovasc Surg.</i> 2002;124:136-145. - Shroyer AL, Coombs LP, Peterson ED, et al. The Society of Thoracic Surgeons: 30-day operative mortality and morbidity risk models. <i>Ann Thorac Surg.</i> 2003;75:1856-1865. - Trick WE, Scheckler WE, et al. Modifiable risk factors associated with deep sternal site infection after coronary artery bypass grafting. <i>J Thorac Cardiovasc Surg.</i> 2000;119:108-114. - Welke KF, Ferguson TB, Coombs LP, et al. Validity of the Society of Thoracic Surgeons National Adult Cardiac Surgery Database. <i>Ann Thorac Surg.</i> 2004;77:1137-1139. - Vesterard RF, Jensen H, Vind-Kezunovic S, et al. Bone healing after median sternotomy: a comparison of two hemostatic devices. <i>J Cardiothoracic Surg</i> 2010 24: 117 - 123 - Friedman ND, Bull AL, Russo PL et al. An alternative scoring system to predict risk for surgical site infections complicating coronary artery bypass. <i>Infect Control Hosp Epidemiol</i> 2007; 28: 1162 - 68 - Priyadharshanan A, Bland M, Loubani M. Risk factors and mortality associated with deep sternal wound infections following coronary bypass surgery with or without concomitant procedures in a UK population: a basis for a new risk model? <i>Interact Cardiovasc Thorac Surg</i> 2010; 11: 543 - 46 - Tang GH, Maganti M, Weisel RD et al. Prevention and management of deep sternal wound infection. <i>Semin Thorac Cardiovasc Surg.</i> 16: 62-9.</p> <p>1c.9 Quote the Specific guideline recommendation (including guideline number and/or page number):</p> <p>1c.10 Clinical Practice Guideline Citation:</p> <p>1c.11 National Guideline Clearinghouse or other URL:</p> <p>1c.12 Rating of strength of recommendation (also provide narrative description of the rating and by whom):</p> <p>1c.13 Method for rating strength of recommendation (If different from USPSTF system, also describe rating and how it relates to USPSTF):</p> <p>1c.14 Rationale for using this guideline over others:</p>	
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Importance to Measure and Report</i>?</p>	<p>1</p>
<p>Steering Committee: Was the threshold criterion, <i>Importance to Measure and Report</i>, met? Rationale:</p>	<p>1 Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES</p>	
<p>Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about</p>	<p>Eval</p>

<p>the quality of care when implemented. (evaluation criteria)</p>	<p>Rating</p>
<p>2a. MEASURE SPECIFICATIONS</p>	
<p>S.1 Do you have a web page where current detailed measure specifications can be obtained? S.2 If yes, provide web page URL:</p> <p>2a. Precisely Specified</p>	
<p>2a.1 Numerator Statement (<i>Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome</i>): Number of patients who, within 30 days postoperatively, develop deep sternal wound infection involving muscle, bone, and/or mediastinum requiring operative intervention. Must have all of the following conditions:</p> <ul style="list-style-type: none"> - Wound opened with excision of tissue (I&D) or re-exploration of mediastinum - Positive culture unless patient on antibiotics at time of culture or no culture obtained - Treatment with antibiotics beyond perioperative prophylaxis <p>2a.2 Numerator Time Window (<i>The time period in which cases are eligible for inclusion in the numerator</i>): Within 30 days postoperatively</p> <p>2a.3 Numerator Details (<i>All information required to collect/calculate the numerator, including all codes, logic, and definitions</i>): Number of isolated CABG procedures in which postoperative deep sternal wound infection [CISDeep (STS Adult Cardiac Surgery Database Version 2.73)] is marked "yes"</p>	
<p>2a.4 Denominator Statement (<i>Brief, text description of the denominator - target population being measured</i>): All patients undergoing isolated CABG</p> <p>2a.5 Target population gender: Female, Male 2a.6 Target population age range: 18 yrs and older</p>	
<p>2a.7 Denominator Time Window (<i>The time period in which cases are eligible for inclusion in the denominator</i>): 12 months</p>	
<p>2a.8 Denominator Details (<i>All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions</i>): Number of isolated CABG procedures;</p> <p>Isolated CABG is determined as a procedure for which all of the following apply:</p> <ul style="list-style-type: none"> - OpCAB is marked "Yes" - (VADProc is marked "No" or "Missing") or (VADProc is marked "Yes, Implanted" and UnplVAD is marked "yes") - OCarASDTy is marked "PFO" or "missing" - OCarAFibAProc is marked "primarily epicardial" or "missing" and - OpValve, VSAV, VSAVPr, ResectSubA, VSMV, VSMVPr, OpTricus, OpPulm, OpONCard, OCarLVA, OCarVSD, OCarSVR, OCarCong, OCarTrma, OCarCrTx, OCAoProcType, EndoProc, OCTumor, OCPulThromDis, OCarOthr are all marked "no" or "missing" 	
<p>2a.9 Denominator Exclusions (<i>Brief text description of exclusions from the target population</i>):</p> <p>2a.10 Denominator Exclusion Details (<i>All information required to collect exclusions to the denominator, including all codes, logic, and definitions</i>):</p>	
<p>2a.11 Stratification Details/Variables (<i>All information required to stratify the measure including the stratification variables, all codes, logic, and definitions</i>):</p>	<p>2a-specs C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>2a.12-13 Risk Adjustment Type: Case-mix adjustment</p> <p>2a.14 Risk Adjustment Methodology/Variables (<i>List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method</i>): Please see attachment</p> <p>2a.15-17 Detailed risk model available Web page URL or attachment: Attachment 2a.15 Detailed Risk Model-634282057229855466.pdf</p>
<p>2a.18-19 Type of Score: Rate/proportion</p> <p>2a.20 Interpretation of Score: Better quality = Lower score</p> <p>2a.21 Calculation Algorithm (<i>Describe the calculation of the measure as a flowchart or series of steps</i>):</p>
<p>2a.22 Describe the method for discriminating performance (<i>e.g., significance testing</i>): Participant specific OR and their 95% CI were estimated in the hierarchical model. These model-based estimates were used to control variation due to random statistical fluctuations while estimating true signal variation. A 95% CI excluding zero indicates the participant’s performance is significantly lower or higher than an “average” STS participant.</p>
<p>2a.23 Sampling (Survey) Methodology <i>If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate)</i>:</p>
<p>2a.24 Data Source (<i>Check the source(s) for which the measure is specified and tested</i>) Registry data</p> <p>2a.25 Data source/data collection instrument (<i>Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.</i>): STS Adult Cardiac Surgery Database - Version 2.73</p> <p>2a.26-28 Data source/data collection instrument reference web page URL or attachment: URL Data Collection Form (an updated version will be made available on the STS Website in mid-January 2011)--- http://www.sts.org/documents/pdf/ndb2010/STSAduItCVDDataCollectionForm2_7_Annotated_20101021.pdf</p> <p>2a.29-31 Data dictionary/code table web page URL or attachment: URL http://www.sts.org/documents/pdf/ndb2010/STSAduItCVDDataSpecificationsV2_7_20101021.pdf -- an updated version will be made available on the STS Website in mid-January 2011</p> <p>2a.32-35 Level of Measurement/Analysis (<i>Check the level(s) for which the measure is specified and tested</i>) Clinicians: Group, Facility/Agency, Population: national, Population: regional/network, Population: states, Population: counties or cities</p> <p>2a.36-37 Care Settings (<i>Check the setting(s) for which the measure is specified and tested</i>) Hospital</p> <p>2a.38-41 Clinical Services (<i>Healthcare services being measured, check all that apply</i>) Clinicians: Physicians (MD/DO)</p>

TESTING/ANALYSIS

<p>2b. Reliability testing</p> <p>2b.1 Data/sample (<i>description of data/sample and size</i>): STS Adult Cardiac Surgery Database - Compared results between two proximate time periods: January 2008-December 2008 and January 2009-December 2009.</p> <p>2b.2 Analytic Method (<i>type of reliability & rationale, method for testing</i>): Compared results between two proximate time periods: January 2008-December 2008 and January 2009-December 2009. Excluded from analysis are participants that did not submit results for both time periods.</p>	<p>2b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
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<p>Because database participants can change their underlying care processes at any time, we would not expect perfect correlation between two sets of results from even proximate time periods.</p> <p>2b.3 Testing Results (<i>reliability statistics, assessment of adequacy in the context of norms for the test conducted</i>): Please see attachment</p>	
<p>2c. Validity testing</p> <p>2c.1 Data/sample (<i>description of data/sample and size</i>): STS Adult Cardiac Surgery Database</p> <p>Audits conducted in 2010, all cases performed in 2009; N = 40 randomly selected sites participating in the STS Adult Cardiac Surgery Database</p> <p>2c.2 Analytic Method (<i>type of validity & rationale, method for testing</i>): Participating sites are randomly selected for participation in STS Adult Cardiac Surgery Database Audit, which is designed to evaluate the accuracy, consistency, and comprehensiveness of data collection and ultimately validate the integrity of the data contained in the database. The Iowa Foundation for Medical Care (IFMC), the quality improvement organization for Iowa and Illinois, has conducted audits on behalf of STS since 2006.</p> <p>Each year, the IFMC conducts audits at randomly selected sites throughout the country and tracks the individual agreement rates by variable and by year. More specifically, for each site, agreement rates are calculated for 73 individual elements. In addition, aggregate agreement rates for each element, variable category (e.g., pre-operative risk factors, previous interventions, etc), and overall for all categories are calculated for all sites. While this is not region specific, it is data point specific and comparison agreement rates confirm the improvement over time as well as the consistency.</p> <p>2c.3 Testing Results (<i>statistical results, assessment of adequacy in the context of norms for the test conducted</i>): Deep Sternal Wound Infection: 99.9% agreement rate</p>	<p>2c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2d. Exclusions Justified</p> <p>2d.1 Summary of Evidence supporting exclusion(s):</p> <p>2d.2 Citations for Evidence:</p> <p>2d.3 Data/sample (<i>description of data/sample and size</i>):</p> <p>2d.4 Analytic Method (<i>type analysis & rationale</i>):</p> <p>2d.5 Testing Results (<i>e.g., frequency, variability, sensitivity analyses</i>):</p>	<p>2d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2e. Risk Adjustment for Outcomes/ Resource Use Measures</p> <p>2e.1 Data/sample (<i>description of data/sample and size</i>): Please see Risk Adjustment Type section above</p> <p>2e.2 Analytic Method (<i>type of risk adjustment, analysis, & rationale</i>): Detailed information regarding the risk adjustment model can be found in the attachment:</p> <p>Shahian DM, O'Brien SM, Filardo G, Ferraris VA, Haan CK, Rich JB, Normand SL, DeLong ER, Shewan CM, Dokholyan RS, Peterson ED, Edwards FH, Anderson RP. The Society of Thoracic Surgeons 2008 cardiac surgery risk models: part 1--coronary artery bypass grafting surgery. Ann Thorac Surg. 2009 Jul;88(1 Suppl):S2-22.</p>	<p>2e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>

<p>2e.3 Testing Results (<i>risk model performance metrics</i>):</p> <p>2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:</p>	
<p>2f. Identification of Meaningful Differences in Performance</p> <p>2f.1 Data/sample from Testing or Current Use (<i>description of data/sample and size</i>): 640 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months; January 1, 2009-December 31, 2009</p> <p>2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance (<i>type of analysis & rationale</i>): We calculated the risk adjusted event rate with the participant’s Odds Ratio (OR) estimate and the overall STS event rate. Therefore, the risk adjusted rate is closely related to OR estimate. If OR > 1, then the participant’s risk adjusted rate will be greater than the overall STS event rate; if OR < 1, then the participant’s risk adjusted rate will be smaller than the overall STS event rate. The statistical significance is defined by the 95% confidence interval (CI) or the OR estimate. If the 95% CI for a participant’s OR includes the null value 1.0, then we cannot distinguish this participant’s performance from the STS average - either the participant’s performance was close to average or else the participant’s sample size was too small to make a reliable inference. Otherwise, if the 95% CI falls to the right of 1.0, then the participant’s performance is considered significantly lower than the average STS results; if the 95% CI falls to the left of 1.0, then the participant’s performance is considered significantly higher than the average STS results.</p> <p>2f.3 Provide Measure Scores from Testing or Current Use (<i>description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance</i>): Please see attachment</p>	<p>2f C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2g. Comparability of Multiple Data Sources/Methods</p> <p>2g.1 Data/sample (<i>description of data/sample and size</i>):</p> <p>2g.2 Analytic Method (<i>type of analysis & rationale</i>):</p> <p>2g.3 Testing Results (<i>e.g., correlation statistics, comparison of rankings</i>):</p>	<p>2g C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2h. Disparities in Care</p> <p>2h.1 If measure is stratified, provide stratified results (<i>scores by stratified categories/cohorts</i>):</p> <p>2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:</p>	<p>2h C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Scientific Acceptability of Measure Properties</i>?</p>	<p>2</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Scientific Acceptability of Measure Properties</i>, met? Rationale:</p>	<p>2 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>3. USABILITY</p>	
<p>Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>3a. Meaningful, Understandable, and Useful Information</p>	<p>3a C <input type="checkbox"/></p>

<p>3a.1 Current Use: In use</p> <p>3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large) (If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years): This measure is one of eleven component measures of the STS CABG Composite Score. Composite star ratings are presented in the health section of the Consumers Union website, www.ConsumerReportsHealth.org</p> <p>Currently, there are 221 STS Adult Cardiac Surgery Database participating hospitals who voluntarily participate in this initiative.</p> <p>3a.3 If used in other programs/initiatives (If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years): CMS Physician Quality Reporting Initiative (PQRI), www.cms.hhs.gov/pqri</p> <p>Testing of Interpretability (Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement)</p> <p>3a.4 Data/sample (description of data/sample and size): See 3a.6 below</p> <p>3a.5 Methods (e.g., focus group, survey, QI project):</p> <p>3a.6 Results (qualitative and/or quantitative results and conclusions): Please see attachment</p>	<p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p>3b/3c. Relation to other NQF-endorsed measures</p> <p>3b.1 NQF # and Title of similar or related measures: OT1-013-09 - The STS CABG Composite Score; Component measures: 0114 Risk-Adjusted Post-Operative Renal Failure, 0115 Risk-Adjusted Surgical Re-exploration, 0116 Anti-Platelet Medication at Discharge, 0117 Beta Blockade at Discharge, 0118 Anti-Lipid Treatment at Discharge, 0119 Risk-Adjusted Operative Mortality for CABG, 0127 Pre-Operative Beta Blockade, 0129 Risk-Adjusted Prolonged Intubation (ventilation), 0130 Risk-Adjusted Deep Sternal Wound Infection Rate, 0131 Risk-Adjusted Stroke/Cerebrovascular Accident, 0134 Use of Internal Mammary Artery (IMA) in Coronary Artery Bypass Graft (CABG)</p>	
<p>(for NQF staff use) Notes on similar/related <u>endorsed</u> or submitted measures:</p>	
<p>3b. Harmonization If this measure is related to measure(s) already <u>endorsed by NQF</u> (e.g., same topic, but different target population/setting/data source <u>or</u> different topic but same target population):</p> <p>3b.2 Are the measure specifications harmonized? If not, why? N/A; however, data definitions and key elements have been established by a multi-societal writing committee called the “ACCF/AHA Writing Committee to Develop Acute Coronary Syndromes and Coronary Artery Disease Clinical Data Standards” with representatives from each of the following organizations:</p> <p>Agency for Healthcare Research and Quality American College of Cardiology American College of Chest Physicians American College of Emergency Physicians American College of Physicians American College of Preventative Medicine American Heart Association American Medical Association Centers for Disease Control and Prevention Emergency Nurses Association Food and Drug Administration Joint Commission on Accreditation of Healthcare Organizations National Association of Emergency Medical Technicians</p>	<p>3b</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>

<p>National Association of EMS Physicians National Heart, Lung, and Blood Institute Preventive Cardiovascular Nurses Association Society for Academic Emergency Medicine Society of Chest Pain Centers and Providers Society of General Internal Medicine Society of Thoracic Surgeons</p>	
<p>3c. Distinctive or Additive Value 3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:</p> <p>5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:</p>	<p>3c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Usability</i>?</p>	<p>3</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Usability</i>, met? Rationale:</p>	<p>3 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4. FEASIBILITY</p>	
<p>Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>4a. Data Generated as a Byproduct of Care Processes</p> <p>4a.1-2 How are the data elements that are needed to compute measure scores generated? Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)</p>	<p>4a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4b. Electronic Sources</p> <p>4b.1 Are all the data elements available electronically? (<i>elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims</i>) Yes</p> <p>4b.2 If not, specify the near-term path to achieve electronic capture by most providers.</p>	<p>4b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4c. Exclusions</p> <p>4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications? No</p> <p>4c.2 If yes, provide justification.</p>	<p>4c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences</p> <p>4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results. This measure may be susceptible to human error (i.e., recording the measure inaccurately or not at all). When data collection on this measure is done through participation in the STS Adult Cardiac Surgery</p>	<p>4d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>Database, an auditing strategy is in place.</p> <p>Both STS and the Duke Clinical Research Institute have a list of database participants making participation in the STS Adult Cardiac Surgery Database easy to track.</p> <p>Each participant is responsible for the quality and accuracy of the data they submit to the database. The participant agrees to the following quality control measures in the participation agreement: i) Participant hereby warrants that all data submitted for inclusion in the STS National Database will be accurate and complete, and acknowledges that such data may be subject to independent audit. Participant will use its best efforts to address any data or related deficiencies identified by the independent data warehouse service provider and agrees to cooperate with and assist STS and its designees in connection with the performance of any independent audit.</p> <p>ii) Participant warrants that it will take all reasonable steps to avoid the submission of duplicative data for inclusion in the STS National Database, including but not limited to apprising the Director of the STS National Database and the independent data warehouse service provider about any other Participation Agreements in which an individual cardiothoracic surgeon named above or on Schedule A attached hereto (as amended from time to time) is also named.</p> <p>STS audited for these potential problems during testing. Please see IFMC audit results.</p>	
<p>4e. Data Collection Strategy/Implementation</p> <p>4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:</p> <p>4e.2 Costs to implement the measure (costs of data collection, fees associated with proprietary measures): Data Collection: There are no direct costs to collect the data for this measure. Costs to develop the measure included volunteer cardiothoracic time, STS staff time, and DCRI statistician and project management time.</p> <p>Other fees: STS Adult Cardiac Surgery Database participants (single cardiothoracic surgeons or a group of surgeons) pay annual participant fees of \$2,950 or \$3,700, depending on whether participants are STS members (or whether the majority of surgeons in a group are STS members). As a benefit of STS membership, STS members are charged the lesser of the two fees.</p> <p>4e.3 Evidence for costs:</p> <p>4e.4 Business case documentation:</p>	<p>4e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Feasibility</i>?</p>	<p>4</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Feasibility</i>, met? Rationale:</p>	<p>4 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p style="text-align: center;">RECOMMENDATION</p>	
<p>(for NQF staff use) Check if measure is untested and only eligible for time-limited endorsement.</p>	<p>Time-limited <input type="checkbox"/></p>

Steering Committee: Do you recommend for endorsement? Comments:	Y <input type="checkbox"/> N <input type="checkbox"/> A <input type="checkbox"/>
CONTACT INFORMATION	
Co.1 Measure Steward (Intellectual Property Owner) Co.1 <u>Organization</u> Society of Thoracic Surgeons, 633 North Saint Clair Street, Suite 2320, Chicago, Illinois, 60611	
Co.2 <u>Point of Contact</u> Jane, Han, jhan@sts.org, 312-202-5856-	
Measure Developer If different from Measure Steward Co.3 <u>Organization</u> Society of Thoracic Surgeons, 633 North Saint Clair Street, Suite 2320, Chicago, Illinois, 60611	
Co.4 <u>Point of Contact</u> Jane, Han, jhan@sts.org, 312-202-5856-	
Co.5 Submitter If different from Measure Steward POC Jane, Han, jhan@sts.org, 312-202-5856-, Society of Thoracic Surgeons	
Co.6 Additional organizations that sponsored/participated in measure development	
ADDITIONAL INFORMATION	
Workgroup/Expert Panel involved in measure development Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development. Members of the STS Task Force on Quality Initiatives provide clinical expertise as needed. The STS Workforce on National Databases meets at the STS Annual Meeting and reviews the measures on a yearly basis. Changes or updates to the measure will be at the recommendation of the Workforce.	
Ad.2 If adapted, provide name of original measure: Ad.3-5 If adapted, provide original specifications URL or attachment	
Measure Developer/Steward Updates and Ongoing Maintenance Ad.6 Year the measure was first released: 2004 Ad.7 Month and Year of most recent revision: 12, 2010 Ad.8 What is your frequency for review/update of this measure? annually Ad.9 When is the next scheduled review/update for this measure? 2011	
Ad.10 Copyright statement/disclaimers:	
Ad.11 -13 Additional Information web page URL or attachment: Attachment 0130 Sections 2a.14, 1b.2, 2b.3, 2f.3, 3a.6.pdf	
Date of Submission (MM/DD/YY): 01/12/2011	

2a.14. Risk Adjustment Methodology/Variables *(List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method)*

The risk adjusted model is a hierarchical logistic regression model with participant level intercept.

$$\text{logit}(\text{outcome}) \sim X\beta + (\gamma | \text{participant})$$

where X is the patient's risk factors, β is the regression coefficients of patient-level risk factors and γ is the participant level regression coefficient.

Inclusion Criteria

The patient level risk adjusted model was developed using a population of patients undergoing isolated CABG procedure in the time period January 2002 – December 2006. For this measurement we re-fit the patient-level model using the latest two and a half years of data (January 2008 – June 2010) from the STS Adult Cardiac Surgery Database.

Variable Definitions and Selection

All variables for consideration are listed in the table below.

Definition of Variables Appearing in STS 2008 CABG Models

Variable	Definition
Intercept	= 1 for all patients
Atrial fibrillation	= 1 if patient has history of preoperative atrial fibrillation, = 0 otherwise
Age	= Patient age in years
Age function 1	= max (age–50, 0)
Age function 2	= max (age–60, 0)
Age by reop function	= Age function 1 if surgery is a reoperation, = 0 otherwise
Age by status function	= Age function 1 if status is emergent or salvage, = 0 otherwise
BSA function 1	= max (1.4, min [2.6, BSA]) – 1.8
BSA function 2	= (BSA function 1) ²
CHF but not NYHA IV	= 1 if patient has CHF and is not NYHA class IV, = 0 otherwise
CHF and NYHA IV	= 1 if patient has CHF and is NYHA class IV, = 0 otherwise
CLD mild	= 1 if patient has mild chronic lung disease, = 0 otherwise
CLD moderate	= 1 if patient has moderate chronic lung disease, = 0 otherwise
CLD severe	= 1 if patient has severe chronic lung disease, = 0 otherwise
Creatinine function 1	= max (0.5, min [creatinine, 5.0]) if patient is not on dialysis, = 0 otherwise
Creatinine function 2	= max ([creatinine function 1] – 1.0, 0)
Creatinine function 3	= max ([creatinine function 1] – 1.5, 0)
CVD without prior CVA	= 1 if patient has history of CVD and no prior CVA, = 0 otherwise
CVD and prior CVA	= 1 if patient has history of CVD and a prior CVA, = 0 otherwise
Diabetes, noninsulin	= 1 if patient has diabetes not treated with insulin, = 0 otherwise
Diabetes, insulin	= 1 if patient has diabetes treated with insulin, = 0 otherwise
Dialysis	= 1 if patient requires dialysis preoperatively, = 0 otherwise
Ejection fraction function	= max (50 – ejection fraction, 0)
Female	= 1 if patient is female, = 0 otherwise
Female by BSA function 1	= BSA function 1 if female, = 0 otherwise
Female by BSA function 2	= BSA function 2 if female, = 0 otherwise
Hypertension	= 1 if patient has hypertension, = 0 otherwise
IABP or inotropes	= 1 if patient requires IABP or inotropes preoperatively, = 0 otherwise
Immunosuppressive treatment	= 1 if patient given immunosuppressive therapy within 30 days, = 0 otherwise
Insufficiency, aortic	= 1 if patient has at least moderate aortic insufficiency, = 0 otherwise
Insufficiency, mitral	= 1 if patient has at least moderate mitral insufficiency, = 0 otherwise

Insufficiency, tricuspid	= 1 if patient has at least moderate tricuspid insufficiency, = 0 otherwise
Left main disease	= 1 if patient has left main disease, = 0 otherwise
MI 1 to 21 days	= 1 if history of MI 1 to 21 days prior to surgery, = 0 otherwise
MI > 6 and < 24 hours	= 1 if history of MI >6 and <24 hours prior to surgery, = 0 otherwise
MI ≤ 6 hours	= 1 if history of MI ≤ 6 hours prior to surgery, = 0 otherwise
No. diseased vessel function	= 2 if triple-vessel disease, = 1 if double-vessel disease, = 0 otherwise
PCI ≤ 6 hours	= 1 if patient had PCI ≤ 6 hours prior to surgery, = 0 otherwise
Peripheral vascular disease	= 1 if patient has peripheral vascular disease, = 0 otherwise
Race black	= 1 if patient is black, = 0 otherwise
Race Hispanic	= 1 if patient is nonblack Hispanic, = 0 otherwise
Race Asian	= 1 if patient is nonblack, non-Hispanic, and is Asian, = 0 otherwise
Reop, 1 previous operation	= 1 if patient has had exactly 1 previous CV surgery, = 0 otherwise
Reop, ≥ 2 previous operations	= 1 if patient has had 2 or more previous CV surgeries, = 0 otherwise
Shock	= 1 if patient was in shock at time of procedure, = 0 otherwise
Status urgent	= 1 if status is urgent, = 0 otherwise
Status emergent	= 1 if status is emergent (but not resuscitation), = 0 otherwise
Status salvage	= 1 if status is salvage (or emergent plus resuscitation), = 0 otherwise
Stenosis aortic	= 1 if patient has aortic stenosis, = 0 otherwise
Unstable angina	= 1 if patient has unstable angina, no MI within 7 days of surgery, = 0 otherwise

BSA = body surface area; CHF = congestive heart failure; CLD = chronic lung disease; CVA = cerebrovascular accident, or stroke; CVD = cerebrovascular disease; DSWI = deep sternal wound infection; EF = ejection fraction; IABP = intra-aortic balloon pump; MI = myocardial infarction; Mort = mortality; NYHA = New York Heart Association; PCI = percutaneous coronary intervention; PLOS = prolonged length of stay; Reop = reoperation; Comp = composite adverse event (any); RF = renal failure; SLOS = short length of stay; STS = The Society of Thoracic Surgeons; Vent = prolonged ventilation.

The final patient-level model was built by backward selection method with several variables forced into the model. For the final patient-level model, please see the attachment.

1b.2. Summary of Measure Results Demonstrating Performance Gap (*Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*)

The summary statistic provided is the Participant’s Estimated Odds Ratio (OR) based on a hierarchical logistic regression analysis. The OR measures the impact that a participant’s performance level has on a patient’s probability of experiencing an adverse outcome. An OR greater than 1.0 implies that the participant increases a patient’s risk of experiencing the outcome, relative to an “average” STS participant. An OR less than 1.0 implies that the participant decreases a patient’s risk of experiencing the outcome, relative to an “average” STS participant. A high OR is undesirable and we define the percentiles with decreasing OR. For example, 90% of STS participants have an OR greater than the value indicated by the “90th percentile” below.

<i>Measurement</i>	<i>Deep Sternal Wound Infection</i>
N	640
Mean	1.2
1 st	5.2
5 th	3.3
10 th	2.5
25 th	1.5
Median	0.7
75 th	0.6
90 th	0.6
95 th	0.5
99 th	0.4
Outlier	54 (8.4)
High	1
Low	53

Also provided is the distribution of the risk adjusted event rate (see below). The risk adjusted rate is an estimate of the participant’s event rate if, hypothetically, the case-mix of the patients treated by the participants is the same as the overall STS case-mix. It is calculated by the OR of the participant, other patient level parameter estimates from the hierarchical logistic model, and the overall STS event rate, by:

$$\text{STS event rate} * (\text{Participant's Expected Event Rate}) / (\text{Participant's Expected Event Rate Assuming Its Performance} = \text{STS Average Performance})$$

In the above equation, “Participant’s Expected Event Rate” is calculated with the participant’s actual OR, and “Participant’s Expected Event Rate Assuming Its Performance = STS Average Performance” is calculated by assuming the participant’s OR = 1 (i.e. no difference in performance from the STS average).

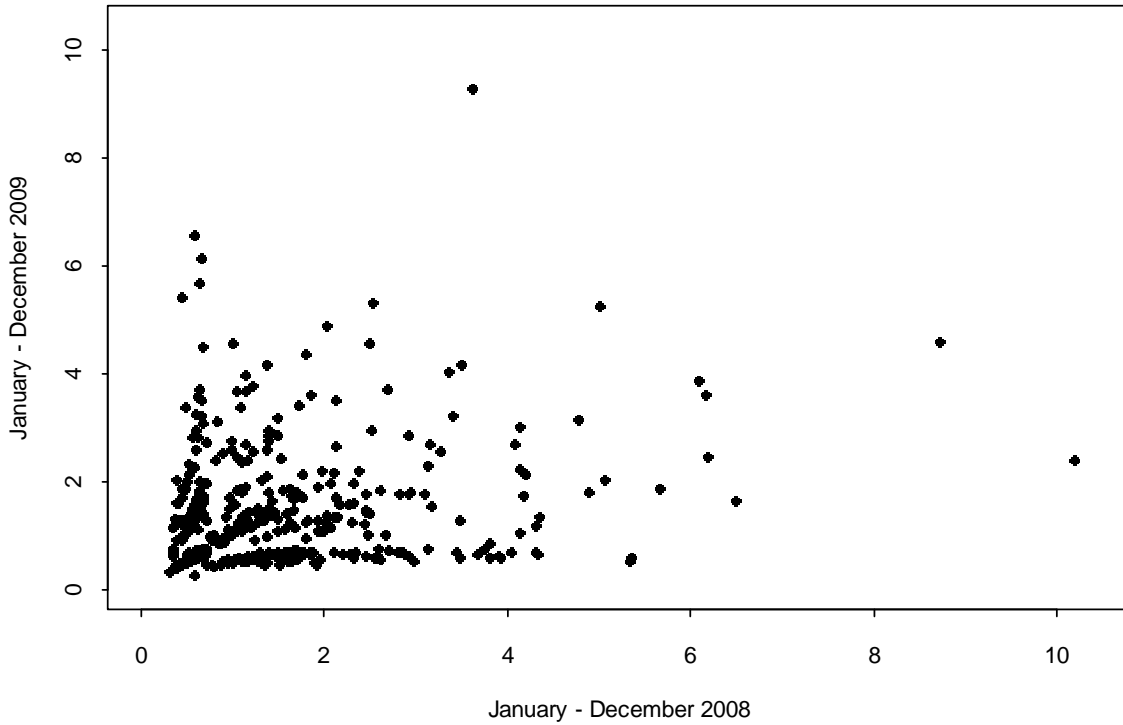
<i>Measurement</i>	<i>Deep Sternal Wound Infection</i>
N	640
Mean	0.4
1 st	0.2

<i>Measurement</i>	<i>Deep Sternal Wound Infection</i>
5 th	0.2
10 th	0.2
25 th	0.2
Median	0.3
75 th	0.6
90 th	0.9
95 th	1.2
99 th	1.9
Outlier	54 (8.4)
High	1
Low	53

2b.3. Testing Results (Reliability statistics, assessment of adequacy in the context of norms for the test conducted)

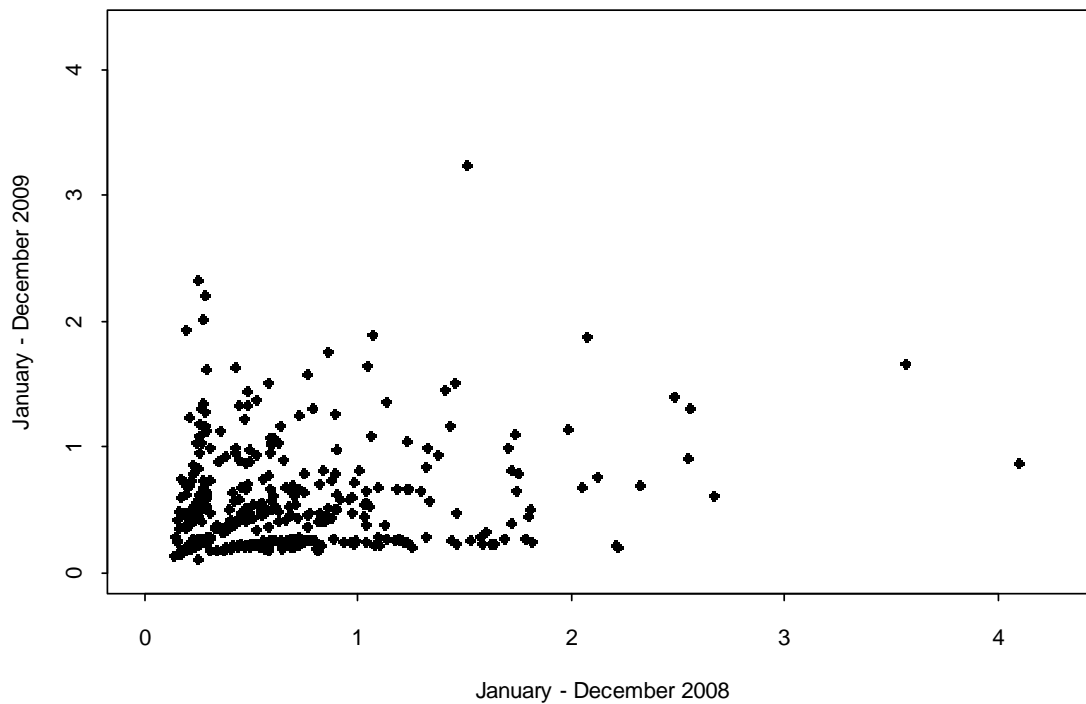
Testing results: $\rho = 0.31$

Deep Sternal Wound Infection ($\rho=0.31$)



Risk Adjusted Rate:

Deep Sternal Wound Infection ($\rho=0.31$)



2f.3. Measure Scores from Testing or Current Use (*Description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance*)

Results below are from January 1, 2009-December 31, 2009. Sample contains 640 STS Adult Cardiac Surgery Database Participants who had at least 100 eligible cases for the measure and reported data to STS for all 12 months.

<i>Measurement</i>	<i>Deep Sternal Wound Infection</i>
N	640
Mean	1.2
1 st	5.2
5 th	3.3
10 th	2.5
25 th	1.5
Median	0.7
75 th	0.6
90 th	0.6
95 th	0.5
99 th	0.4
Outlier†	54 (8.4)
High	1
Low	53

Risk Adjusted Rate:

<i>Measurement</i>	<i>Deep Sternal Wound Infection</i>
N	640
Mean	0.4
1 st	0.2
5 th	0.2
10 th	0.2
25 th	0.2
Median	0.3
75 th	0.6
90 th	0.9
95 th	1.2
99 th	1.9
Outlier†	54 (8.4)
High	1
Low	53

†Represents the number of participants that are outliers according to two-sided 95% confidence interval of odds ratio.

3a.6. Results *(Qualitative or quantitative results and conclusions)*

Although formal testing of interpretability has not been performed, this measure has been used and reported for STS Adult Cardiac Surgery database participants since 2007. Current report presentation and interpretation manuals are presented below. These materials are updated as needed based upon feedback from database participants.

1) Report Overview and Interpretation Manual:

The NQF Measures Report

a. Organization

This report section is separated into three areas corresponding to: 1) NQF volume measures, 2) NQF process measures, and 3) NQF outcomes measures, in that order. The header at the top of each page references the report section for that page. Each NQF measure is presented on a single row in the section. Tabular data are on the left-hand side of each page and a standard graphic representation is shown on the right-hand side.

b. Statistical Calculation and Details – NQF Measures

Time period: This report section contains information on the individual STS participant and overall STS performance for the most recent 12 months for volume, process and CABG outcomes measures and the most recent 60 months for Valve and Valve + CABG outcomes. The 5 years (60 months) of performance for outcomes involving Valve procedures is necessary due to smaller sample sizes.

Volume Measures: The NQF report provides average annual case volumes data for three surgery categories: i) Isolated CABG, ii) Valve without CABG, and iii) combined CABG + Valve. Definitions of the three surgery categories are provided in Table 2 of this NQF Report Overview. For each type of surgery, the participant's annualized volume is calculated as:

$$\text{Participant Annualized Volume} = 12 \times (\# \text{ of surgeries}) / (\# \text{ of months})$$

where (# of surgeries) denotes the number of surgeries of the specified type performed by the participant during the specified time period, and (# of months) is the number of months during the specified time period for which the participant submitted at least one cardiac surgery of any type. The intent of calculating “annualized” volumes is to adjust for participants who participated in the database for fewer months than the time period specified. For participants who participated in the database and submitted cases every month during 2006, the annualized volume for 2006 is simply the total number of cases.

The STS Average Annualized Volume is the average value of all of the participant annualized volumes across the entire population of STS participants. The Participant Percentile indicates the percent of STS participants whose annualized volumes are less than, or equal to, your own. Higher percentiles indicate higher volumes in relation to other STS participant sites. The Distribution of Participant Values shows the range and percentiles of the distribution of participant annualized volumes across all database participants. For example, 90% of participants have annualized volumes less than or equal to the value marked “90th percentile.” Confidence intervals are not provided for volume measures, as volume is known with certainty and is not estimated.

Process Measures: The NQF process measures provide data on the frequency of usage of five therapies among subsets of Isolated CABG patients. The therapies are: i) preoperative beta blockade therapy, ii) use of IMA, iii) discharge anti-platelet medication, iv) discharge beta blockade therapy, and v) discharge anti-lipid medication. The patient population for each measure differs, in accordance with the NQF specifications (see Table 2 of this NQF Report Overview for details). The number of Eligible

Procedures is the number of cases performed by the participant during the specified time period who meet the eligibility requirements to be included in the calculations when summarizing the participant's data. ***Beginning with the 2008 Harvest 3 report (covering the procedure time period through 6/30/2008), STS implementation of NQF medication process measures using data version 2.61 excludes records for which the medication was contraindicated/not indicated from the eligible population.*** The main summary statistic, Participant Usage, is the percent of eligible Isolated CABG cases during the specified time period for which the patient received the specified therapy. The Overall STS Usage is the percent of all eligible patients in the entire STS population during the specified time period who received the specified therapy. ***In calculating these percentages, missing data are treated as a "No", emphasizing the importance of having complete data in these fields.***

The Participant Percentile indicates the percent of STS participants who applied the therapy in their respective populations less frequently than or as frequently as did your institution. The Distribution of Participant Values shows the range and percentiles of the distribution of participant usage across all participants in the database. For example, 90% of participants use the therapy less frequently than the amount indicated by the "90th percentile". A bar identified as "Participant" indicates the point estimate and limits of a 95% Confidence Interval (CI) for the participant's usage of therapy. The underlying parameter being estimated is the long-run usage rate that would be observed in a large sample of patients. The 95% CI indicates the range of usage rates that are consistent with the data in light of sampling variability.

Outcomes Measures: The NQF outcomes data provide risk-adjusted analyses of mortality and morbidity for Isolated CABG surgery as well as risk-adjusted operative mortality for Isolated AVR, Isolated MVR, AVR+CABG, and MVR+CABG. The main summary statistic provided is the Participant's Estimated Odds Ratio (OR) based on a hierarchical logistic regression analysis. The OR measures the impact that a participant's performance level has on a patient's probability of experiencing an adverse outcome. The interpretation is similar to that of an O/E ratio (see the Risk-Adjusted Results: Overview portion of the General Report Overview for details on STS risk adjustment). An OR greater than 1.0 implies that the participant increases a patient's risk of experiencing the outcome, relative to an "average" STS participant. An OR less than 1.0 implies that the participant decreases a patient's risk of experiencing the outcome, relative to an "average" STS participant. Each measure is calculated among patients undergoing surgery of the type specified during the time period specified who additionally meet certain eligibility requirements. The column labeled Eligible Procedures indicates the number of patients who met the inclusion criteria to be included in the analysis for the indicated measure. The Participant Percentile is the percent of STS participants who have an estimated OR that is greater than or equal to your estimated OR. Note that this is different than performance percentiles for process measures, where the percentile indicates the percentage of STS participants with performance that is *less than* the specified number. This simply reflects the fact that high process compliance is desirable, whereas a high OR is undesirable.

The Observed Participant Rate is the percent of eligible patients who experienced the specified outcome. Unlike the participant estimated OR, the observed participant rate is not risk-adjusted. The estimated OR is the main summary statistic for summarizing the NQF measure in this report.

The Distribution of Participant Values shows the range and percentiles of the distribution of estimated Odds Ratios across all STS participants. For example, 90% of STS participants have an OR greater than the value indicated by the "90th percentile." The line that extends to the left and right of the Participant Value indicates the lower and upper limits of a 95% Confidence Interval (CI) surrounding the participant's estimated OR.

c. Technical Notes

Calculation of Percentiles for the Distribution of Participant Values: The graph provided for each measure contains information about the distribution of the value of the measure across all STS

participants, namely the minimum, maximum, 10th percentile, 50th percentile, and 90th percentile. The “Xth” percentile, denoted P_x , is loosely defined as the number having the property that X% of the participant values are less than P_x , and (100 – X)% of the participant values are greater than P_x . **For process measures, participants with greater than 5% missing data were excluded when calculating percentiles of the STS distribution and do not have a calculated participant percentile.** For participants having less than 5% missing data on a process measure, the missing values on the process measure were converted to “No” before calculating percentiles. For outcomes measures, all participants submitting at least one eligible case were included when calculating percentiles of the STS distribution. Missing data on outcomes variables were treated as “No.”

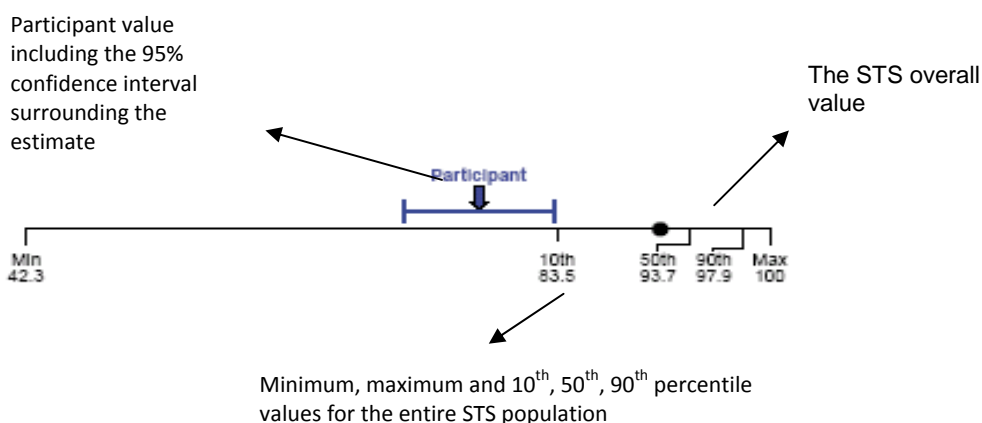
NQF/STS Results Comparison: Participants may see some differences between summaries of their data provided in the NQF section of the report and summaries of their data reported elsewhere in the STS report. These differences are due to subtle variations in variable definitions, patient inclusion and exclusion criteria, and rules for handling missing data in the NQF section versus the rest of the report. Definitions used in the NQF report were designed to match current NQF specifications as closely as possible. It is expected that these differences will eventually disappear as the NQF measures are refined. Some important differences are:

Case Volumes – The NQF report section presents “annualized” volumes. These are case volumes that have been adjusted for the number of months that a participant was an active contributor to the database. Elsewhere in the STS report, total case volumes are presented without adjustment for the length of participation.

Eligible Cases - The NQF report also presents the number of “eligible cases” for each measure. Separate inclusion criteria are applied to each measure, and these inclusion criteria do not always match the definitions used elsewhere in the STS report. Please refer to the footnotes in each section for specific details.

Interpretation Manual

In addition to the statistics provided for each of the STS Composite Quality Domains and NQF measures, a figure representing the distribution of values for the entire STS population is provided.



The figure allows participants to quickly judge their performance relative to the overall STS. The scale of the figure is set up such that the right side of the distribution represents the most favorable performance and the left side represents the least favorable performance (Note that in some cases smaller numbers will be on the left; in other instances, smaller numbers will be on the right. For example, for the Pre-operative Beta Blockade Therapy measure, the far left side of the distribution will contain the *lowest* percentage Beta Blockade Therapy for an STS participant – this corresponds to least

favorable performance. Alternatively, for the Operative Mortality Measure, the far left side of the distribution will contain the *highest* Estimated Odds Ratio – this also corresponds to least favorable performance). If a participant’s value for a given measure is to the left of the STS overall value, the participant is performing worse on that measure than the overall STS. Conversely, if the participant’s value for a given measure is located to the right of the overall STS value, the participant is performing better than the overall STS.

NOTE! Care should be given to reading these figures. In some instances, the various percentiles presented cluster very close together in the data. In such cases, the label for the percentile is not necessarily located immediately at the point on the distribution where the percentile occurs. An example of this is apparent in the figure above: The 50th percentile corresponds to a value of 93.7 and looks to align fairly closely with the STS overall value as represented by the large black dot. However, the expandable figure marking actually points to a place somewhere to the right of the STS overall value for the 50th percentile marking. So the STS overall value would be some amount less than 93.7.

Also, please note that in some cases, small sample sizes preclude valid comparisons between the participant and the STS overall. Such instances are clearly noted in the report output.

a. NQF Measures Interpretation Example

Sample CABG Operative Mortality results – tabular and figure representation.

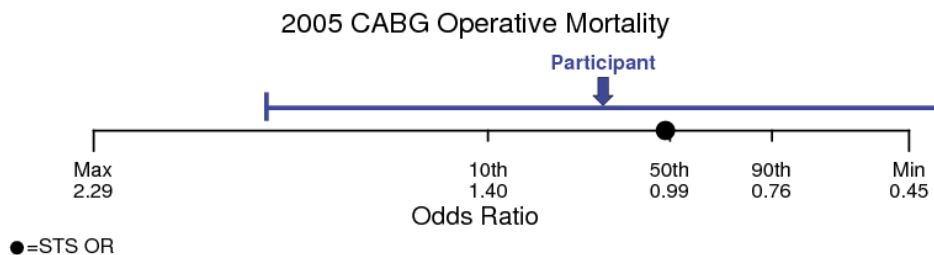
NQF Measure	Eligible Procedures	Participant Estimated OR	Participant Percentile	Participant Observed Rate
2005 CABG Operative Mortality	74	1.14	26.3	5.4%

Eligible Procedures: 74 patients met the inclusion criteria for the indicated measure.

Participant Estimated OR (Odds Ratio): The main summary statistic measuring the impact that a participant’s performance has on a patient’s probability of experiencing an adverse outcome has a value of 1.14 indicating worse than expected performance.

Participant Percentile: 26.3% of STS participants had an estimated OR greater than or equal to your estimated OR. In other words, 26.3% had the same or worse performance.

Participant Observed Rate: 5.4% of the 74 eligible patients experienced the specified outcome.



The highest OR among all STS participants = 2.29
 The lowest OR among all STS participants = 0.45
 The STS average OR is 1.00

The 95% confidence interval for the participant's OR spans from <0.45 to ~1.90

2) Sample page from section of the report that contains NQF measure results:



**NQF Measures
Process Measures
Participant 99999
STS Period Ending 12/31/2008**



NQF Measure	Eligible Procedures	Participant Usage (95% CI)	Participant Percentile	Overall STS Usage	Distribution of Participant Values ● = Overall STS Usage
Jan 2008 - Dec 2008 Preoperative Beta Blockade Therapy ¹	541	89.3% (86.4 , 91.8)	69.9	82.1%	
Jan 2008 - Dec 2008 Use of IMA ²	536	96.5% (94.5 , 97.9)	63.3	94.2%	
Jan 2008 - Dec 2008 Discharge Anti-Platelet Medication ³	536	98.7% (97.3 , 99.5)	68.7	96.1%	
Jan 2008 - Dec 2008 Discharge Beta Blockade Therapy ⁴	538	96.1% (94.1 , 97.6)	53.4	93.7%	
Jan 2008 - Dec 2008 Discharge Anti-Lipid Treatment ⁴	535	91.8% (89.1 , 94.0)	40.7	91.4%	

¹Excludes v2.61 contraindicated / not indicated records.

²Excludes patients with prior CABG surgery

³Anti-platelet use includes Aspirin and ADP Inhibitors, and excludes in-hospital mortalities. Excludes v2.61 contraindicated / not indicated records.

⁴Excludes in-hospital mortalities. Excludes v2.61 contraindicated / not indicated records.

The Society of Thoracic Surgeons 2008 Cardiac Surgery Risk Models: Part 1—Coronary Artery Bypass Grafting Surgery

David M. Shahian, MD,^a Sean M. O'Brien, PhD,^b Giovanni Filardo, PhD, MPH,^c Victor A. Ferraris, MD,^d Constance K. Haan, MD,^e Jeffrey B. Rich, MD,^f Sharon-Lise T. Normand, PhD,^g Elizabeth R. DeLong, PhD,^b Cynthia M. Shewan, PhD,^h Rachel S. Dokholyan, MPH,^b Eric D. Peterson, MD, MPH,^b Fred H. Edwards, MD,^e and Richard P. Anderson, MD^{i†}

^aMassachusetts General Hospital, Boston, Massachusetts; ^bDuke Clinical Research Institute, Durham, North Carolina; ^cInstitute for Health Care Research and Improvement, Baylor Health Care System, Dallas, Texas; ^dUniversity of Kentucky Chandler Medical Center, Division of Cardiovascular and Thoracic Surgery, Lexington, Kentucky; ^eUniversity of Florida, Division of Cardiothoracic Surgery, Jacksonville, Florida; ^fSentara Cardiovascular Research Institute, Norfolk, Virginia; ^gDepartment of Health Care Policy, Harvard Medical School, and Department of Biostatistics, Harvard School of Public Health, Boston, Massachusetts; ^hThe Society of Thoracic Surgeons, Chicago, Illinois; and ⁱSeattle, Washington

Background. The first version of The Society of Thoracic Surgeons National Adult Cardiac Surgery Database (STS NCD) was developed nearly 2 decades ago. Since its inception, the number of participants has grown dramatically, patient acuity has increased, and overall outcomes have consistently improved. To adjust for these and other changes, all STS risk models have undergone periodic revisions. This report provides a detailed description of the 2008 STS risk model for coronary artery bypass grafting surgery (CABG).

Methods. The study population consisted of 774,881 isolated CABG procedures performed on adult patients aged 20 to 100 years between January 1, 2002, and December 31, 2006, at 819 STS NCD participating centers. This cohort was randomly divided into a 60% training (development) sample and a 40% test (validation) sample. The development sample was used to identify predictor variables and estimate model coefficients. The validation sample was used to assess model calibration and discrimination. Model outcomes included operative mortality, renal failure, stroke, reoperation for any cause, prolonged ventilation, deep sternal wound infection, composite major morbidity or mortality, prolonged length of stay (> 14 days), and short length of stay (< 6 days and alive). Candidate predictor variables were selected based on their availability in versions 2.35, 2.41, and 2.52.1 of the STS NCD and their presence in (or ability to be mapped to) version 2.61. Potential predictor

variables were screened for overall prevalence in the study population, missing data frequency, coding concerns, bivariate relationships with outcomes, and their presence in previous STS or other CABG risk models. Supervised backwards selection was then performed with input from an expert panel of cardiac surgeons and biostatisticians. After successfully validating the fit of the models, the development and validation samples were subsequently combined, and the final regression coefficients were estimated using the overall combined (development plus validation) sample.

Results. The c-index for the mortality model was 0.812, and the c-indices for other endpoints ranged from 0.653 for reoperation to 0.793 for renal failure in the validation sample. Plots of observed versus predicted event rates revealed acceptable calibration in the overall population and in numerous subgroups. When patients were grouped into categories of predicted risk, the absolute difference between the observed and expected event rates was less than 1.5% for each endpoint. The final model intercept and coefficients are provided.

Conclusions. New STS risk models have been developed for CABG mortality and eight other endpoints. Detailed descriptions of model development and testing are provided, together with the final algorithm. Overall model performance is excellent.

(Ann Thorac Surg 2009;88:S2–22)

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In 1986, The Society of Thoracic Surgeons (STS) convened an Ad Hoc Committee on Risk Factors for Coronary Artery Bypass Graft Surgery (CABG) [1] and an

Ad Hoc Committee to Develop a National Database for Cardiothoracic Surgery [2]. This was prompted by the

†This author is deceased. Former Chair, Quality, Research and Patient Safety Council, The Society of Thoracic Surgeons, Chicago, IL.

Address correspondence to Dr Shahian, Massachusetts General Hospital, 55 Fruit St, Boston, MA 02114; e-mail: dshahian@partners.org.

Drs Shahian, O'Brien, Filardo, Ferraris, Haan, Rich, Normand, DeLong, Shewan, Peterson, Edwards, Anderson, and Ms Dokholyan have no conflicts of interest to declare regarding this work.

Abbreviations and Acronyms

BSA	=	body surface area
CABG	=	coronary artery bypass graft surgery
CHF	=	congestive heart failure
EF	=	ejection fraction
GFR	=	glomerular filtration rate
HCFA	=	Health Care Financing Administration
IABP	=	intra-aortic balloon pump
NYHA	=	New York Heart Association
NCD	=	National Adult Cardiac Surgery Database
O/E	=	observed to expected ratio
QMTF	=	Quality Measurement Task Force
STS	=	The Society of Thoracic Surgeons

release earlier that year of inadequately risk-adjusted hospital mortality data by the Health Care Financing Administration (HCFA), now the Centers for Medicare and Medicaid Services. Although the HCFA analytical methodology was widely criticized, STS leadership recognized that the underlying principle of collecting and analyzing data to improve patient outcomes was valid, particularly for complex and costly procedures such as coronary artery bypass grafting surgery (CABG). They believed that it was the responsibility of professional organizations to develop credible clinical data registries for their own specialties, and that risk models derived from such registries would circumvent many of the concerns resulting from the use of unadjusted administrative data. Such clinical registries would be used as credible data sources for quality assessment and improvement activities as well as for research.

These early activities ultimately led to the development of the STS National Adult Cardiac Surgery Database (NCD) [3, 4]. Since its release to members in 1990, the STS NCD has evolved to become one of the largest specialty-specific clinical data registries in the world. It currently has more than 950 participants enrolled, representing just under 90% of the cardiac surgery providers in the United States, with data on more than 3.6 million procedures. Similar STS data registries have now been developed for congenital heart surgery and general thoracic surgery, and future plans include the development of specialty modules (eg, quality metrics, atrial fibrillation surgery, thoracic aortic surgery). Recent enhancements, including the addition of unique physician and patient identifiers, will facilitate linkages with other registries and greatly expand the potential of the STS NCD for longitudinal follow-up, comparative effectiveness, and cost efficiency studies.

In addition to the development of the STS NCD as a comprehensive, nationally representative data registry, the second major goal of the STS was to assure that analyses derived from this registry would be appropriately adjusted for preoperative patient severity, a major deficiency of the HCFA reports that were initially published in 1986. This was accomplished by first identifying

risk factors for specific procedures and outcomes, beginning with isolated CABG, then using these predictor variables to develop risk models. With statistical risk models, which are most often based on logistic regression, the expected outcome for a patient with a given set of risk factors can be determined, and that can be compared with the observed outcome. The observed (O) and expected (E) outcomes are summed over all patients of a particular surgeon or hospital to yield the risk-standardized mortality ratio (O/E), which can then be multiplied by the average rate in the reference population to calculate risk-standardized mortality rates [5–7].

STS CABG risk models have undergone periodic updates and revisions, the most recent of which was based upon 2000 to 2002 STS NCD data. In 2007, the STS Database Modernization Task Force completed a major specification upgrade of the STS NCD data collection instrument from version 2.52.1 to version 2.61. This included refinement, modification, consolidation, or elimination of some data elements, as well as an attempt to harmonize definitions with those of the American College of Cardiology National Cardiovascular Data Registry whenever possible. Given these changes, as well as the number of years since the last risk model update, the STS Quality Measurement Task Force (QMTF) was asked to develop new risk models for isolated CABG, isolated valve repair or replacement, and combined CABG plus valve procedures. The authors of this report include the QMTF members who participated in this initiative.

Implementation of these new models in January 2008 coincided with the release of STS NCD version 2.61. This report, Part 1 of 3, describes the development of the new mortality and morbidity models for isolated CABG surgery.

Study Purpose

The primary goal of this study was to develop risk-prediction algorithms for patients undergoing isolated CABG surgery. As the major intended use of these algorithms was to compare participant outcomes to the overall STS national experience, risk factors were generally restricted to patient and clinical characteristics present preoperatively.

Risk Model Development and Transparency

The availability of user-friendly statistical software programs and the exponential increase in computing speed have greatly facilitated statistical analyses such as logistic regression, the basis for many risk models. However, despite these technological advances, clinical judgment, experience, intuition, and practicality still play a critical role in risk model development. There are many points in model development at which legitimate differences in approach may lead to substantial differences in the resulting statistical models and the inferences derived from them [8].

We believe the degree of transparency provided in this report regarding the development of the STS CABG risk

models is essential in today's health care environment. In an era when society demands full transparency regarding health care performance, the methodologies used to evaluate that performance should be just as transparent [9, 10]. This fundamental principle is among the standards established by the American Heart Association and American College of Cardiology for statistical models used for public reporting [11].

Study Population and Endpoints

All isolated CABG procedures performed on adult patients aged 20 to 100 years between January 1, 2000, and December 31, 2006, were initially considered for inclusion, although the final development and validation samples were derived from 2002 to 2006 data. Patients missing data on sex ($n = 195$) were excluded, as these patients are not included in STS performance feedback reports to database participants. That left a study population of 774,881 surgical procedures from 819 database participants. Patients on dialysis preoperatively ($n = 12,415$) were excluded when developing the risk model for postoperative renal failure.

Training and Validation Samples

The study population was randomly divided into a 60% training (development) sample and a 40% test (validation) sample. The development sample was used to identify predictor variables and estimate model coefficients. Data from the validation sample were used to assess model fit, discrimination, and calibration. After choosing variables and assessing model fit, the development and validation samples were subsequently combined, and the final model coefficients were estimated using the combined (development plus validation) data.

Endpoints

Risk models were developed for the nine endpoints listed below. Only mortality was recorded beyond the index hospitalization. Morbidity data included only in-hospital complications, although beginning in STS NCD version 2.61, sternal infections will be recorded for up to 30 days postoperatively. The nine endpoints are as follows: (1) operative mortality: death during the same hospitalization as surgery, regardless of timing, or within 30 days of surgery regardless of venue; (2) permanent stroke (cerebrovascular accident): a central neurologic deficit persisting longer than 72 hours; (3) renal failure: a new requirement for dialysis or an increase of the serum creatinine to more than 2.0 mg/dL and double the most recent preoperative creatinine level; (4) prolonged ventilation (longer than 24 hours); (5) deep sternal wound infection; (6) reoperation for any reason; (7) major morbidity or mortality: a composite defined as the occurrence of any of the above endpoints; (8) prolonged postoperative length of stay (PLOS): length of stay (LOS) more than 14 days (alive or dead); and (9) short postoperative LOS (SLOS): LOS less than 6 days and patient alive at discharge (this SLOS definition differs from the previous STS risk models, which did not exclude patients who died in-hospital; patients who died within 5 days of surgery are

included in the new models but are treated as not having a short stay).

Table 1 summarizes the frequencies of these endpoints in the study population for each predictor variable category (ie, the bivariate relationships).

Selection of Candidate Predictor Variables

Initial Data Screening of Candidate Predictor Variables

We began by considering all possible candidate variables from the development set (Table 2). Because the primary goal of the STS risk models is to adjust surgical outcomes, in general only preoperative patient variables are included. However, because these models are also used for other purposes such as individual patient prediction and counseling, there were a few modifications (which are discussed in the relevant sections) in the application of this general principle.

As there were a large number of procedures and endpoints available, we were not statistically constrained to highly parsimonious models, nor is such an approach generally favored in regression modeling [12-14]. Discarding valid data elements can waste valuable information that has been collected at substantial effort and cost. Furthermore, although much of the discrimination of a predictive model may be contained in a relatively small number of variables [15, 16], some predictor variables that add only modestly to discrimination may still be important predictors of outcomes at the patient level [17, 18].

Expert Panel Review for Clinical Relevance and Face Validity

All candidate variables available in version 2.61 were individually discussed by a panel of cardiac surgeons and health policy experts to assure that clinical relevance as well as multiple aspects of validity (face, construct, and content) had been considered.

Data Version for Model Development

Although these new risk models were to be introduced in conjunction with the release of STS NCD version 2.61, they were developed with data collected under the three previous data versions (2.35, 2.41, and 2.52.1) because no 2.61 data were yet available. The QMTF began its predictor selection process with two caveats. First, any candidate variable had to be collected consistently across the three previous data versions. Second, it had to also be available in version 2.61 or have the ability to be mapped to this new version. For example, history of smoking and renal failure were not candidate variables as they were either not included in, or were unable to be mapped to, version 2.61. Renal function is now assessed by the last preoperative serum creatinine value, which is collected in all data versions. Because the definition of hypercholesterolemia has changed substantially over successive STS data versions, and because counterintuitive results have been observed in some previous analyses of hyper-

Table 1. Distribution of Risk Factors and Frequency of Adverse Outcomes in Overall Study Population, Isolated Coronary Artery Bypass Graft Surgery (2002–2006)

Variable	Number of Patients		Percent of Patients Experiencing Endpoint								
	N	%	Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
Overall											
Total	774,881	100.0	2.3	1.4	3.6	9.7	0.4	5.2	14.4	5.6	51.2
Age, years											
< 55	137,318	17.72	1.0	0.5	1.7	7.1	0.3	3.7	10.0	2.7	67.1
55–64	221,697	28.61	1.3	0.9	2.4	7.8	0.4	4.2	11.4	3.8	59.4
65–74	245,132	31.63	2.4	1.6	3.9	10.0	0.5	5.5	14.9	5.9	47.7
≥ 75	170,734	22.03	4.7	2.3	6.4	13.9	0.5	7.5	20.9	9.6	33.0
Sex											
Male	560,006	72.27	2.0	1.2	3.4	8.7	0.4	5.1	13.4	4.9	55.0
Female	214,875	27.73	3.4	1.9	4.1	12.2	0.5	5.6	17.0	7.2	41.5
Race											
Caucasian	665,941	85.94	2.3	1.3	3.5	9.3	0.4	5.1	13.9	5.3	52.2
Black	44,405	5.73	2.7	2.0	5.2	13.5	0.7	6.3	19.0	8.2	41.3
Hispanic	25,103	3.24	2.6	1.5	4.3	11.3	0.5	5.6	16.1	6.1	48.4
Asian	12,509	1.61	2.7	1.9	3.8	12.6	0.3	7.2	17.4	7.0	45.2
Other	21,222	2.74	2.3	1.3	3.6	10.4	0.5	5.5	14.8	6.0	48.7
Missing	5,701	0.74	2.3	1.4	4.1	9.4	0.4	5.2	14.5	6.1	48.9
Body surface area (m ²)											
< 1.50	14,339	1.85	6.2	2.4	4.6	16.2	0.3	8.3	22.1	9.8	36.5
1.50–1.74	111,458	14.38	3.8	2.0	4.0	12.6	0.3	6.5	17.7	7.4	42.5
1.75–1.99	280,677	36.22	2.4	1.5	3.5	9.6	0.4	5.4	14.4	5.6	50.7
≥ 2.00	363,817	46.95	1.7	1.0	3.6	8.6	0.5	4.6	13.1	4.8	55.0
Missing	4,590	0.59	3.7	1.4	4.0	7.6	0.3	4.7	13.9	6.8	46.0
Body mass index (kg/m ²)											
< 25	169,091	21.82	3.3	1.7	3.5	11.0	0.3	6.7	16.3	6.7	47.6
25–29	303,371	39.15	2.1	1.3	3.1	8.6	0.3	4.9	13.1	4.8	54.2
30–34	186,148	24.02	1.8	1.2	3.6	9.0	0.5	4.5	13.4	5.0	53.1
≥ 35	110,213	14.22	2.3	1.2	5.2	12.0	0.8	4.9	16.8	6.8	45.7
Missing	6,058	0.78	3.7	1.4	4.2	8.6	0.3	4.8	14.5	6.7	47.2
Diabetes mellitus											
No diabetes	492,800	63.60	2.1	1.2	2.8	8.8	0.3	5.0	13.0	4.7	54.8
Diabetes–noninsulin	195,421	25.22	2.3	1.6	4.3	10.1	0.5	5.2	15.2	6.0	48.2
Diabetes–insulin	84,406	10.89	3.6	1.8	7.1	13.9	1.0	6.5	20.6	9.7	37.5
Diabetes–missing treatment	1,439	0.19	3.1	2.2	4.6	11.1	0.7	4.6	15.7	8.8	41.9
Missing	815	0.11	3.8	0.7	2.6	8.8	0.5	4.5	12.3	6.9	43.7
Hypertension											
No	167,260	21.59	1.9	0.9	2.2	8.1	0.3	4.6	11.7	4.2	58.2
Yes	606,813	78.31	2.5	1.5	4.0	10.1	0.5	5.4	15.1	5.9	49.3
Missing	808	0.10	3.8	0.7	2.4	9.3	0.5	5.2	12.7	6.7	43.9
Hypercholesterolemia											
No	199,894	25.80	3.0	1.6	3.9	11.0	0.5	5.8	16.1	6.5	48.7
Yes	573,257	73.98	2.1	1.3	3.5	9.2	0.4	5.0	13.8	5.2	52.1
Missing	1,730	0.22	4.1	1.6	3.5	10.3	0.3	4.7	13.9	7.3	47.5
Past or present smoker											
No	295,999	38.20	2.4	1.4	3.7	9.0	0.4	5.1	13.9	5.3	50.1
Yes	477,911	61.68	2.3	1.3	3.6	10.1	0.5	5.3	14.7	5.7	51.9
Missing	971	0.13	3.4	0.7	3.1	9.9	0.4	5.3	13.5	9.1	41.0
Chronic lung disease											
None	612,211	79.01	2.0	1.3	3.3	8.4	0.3	4.9	13.0	4.7	53.7
Mild	85,005	10.97	2.8	1.5	4.2	12.0	0.6	5.8	16.9	7.0	45.7
Moderate	47,745	6.16	3.8	1.6	5.3	15.8	0.8	6.8	20.8	9.6	39.5
Severe	22,302	2.88	7.0	2.0	7.7	22.8	1.1	9.5	29.0	15.3	29.2
Missing	7,618	0.98	2.6	1.4	3.2	8.2	0.2	3.9	12.6	5.7	53.4

Table 1. Continued

Variable	Number of Patients		Percent of Patients Experiencing Endpoint								
	N	%	Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
Peripheral vascular disease											
No	653,260	84.30	2.0	1.2	3.2	8.8	0.4	4.8	13.1	4.8	53.5
Yes	120,480	15.55	4.4	2.3	6.1	14.4	0.7	7.5	21.2	9.6	38.7
Missing	1,141	0.15	3.9	1.1	3.1	11.8	0.3	5.5	14.4	7.4	43.9
Cerebrovascular disease											
No	668,073	86.22	2.1	1.1	3.3	9.0	0.4	4.9	13.4	5.0	53.4
Yes	105,792	13.65	4.0	2.9	5.8	14.0	0.6	7.2	20.7	9.3	37.7
Missing	1,016	0.13	3.2	0.6	2.4	8.9	0.3	4.2	11.4	6.8	43.2
CVA											
No CVA	717,721	92.62	2.2	1.2	3.4	9.3	0.4	5.1	13.8	5.2	52.5
Remote CVA (> 2 weeks)	53,341	6.88	4.2	3.1	6.1	15.3	0.7	7.4	22.0	10.3	35.5
Recent CVA (≤ 2 weeks)	1,763	0.23	5.0	4.9	6.5	18.8	0.9	8.7	25.4	13.0	32.5
CVA—missing timing	745	0.10	3.8	3.5	6.9	14.0	0.5	5.9	21.7	10.7	34.2
Missing	1,311	0.17	3.3	1.0	2.6	7.4	0.2	4.3	11.4	5.9	47.8
Endocarditis											
No endocarditis	773,002	99.76	2.3	1.4	3.6	9.7	0.4	5.2	14.4	5.5	51.2
Treated endocarditis	472	0.06	4.4	0.8	5.3	15.3	0.6	8.5	19.9	8.9	33.7
Active endocarditis	110	0.01	2.7	1.8	6.3	20.0	1.8	11.8	24.5	20.0	41.8
Endocarditis—missing type	90	0.01	4.4	4.4	5.8	11.1	1.1	3.3	15.6	2.2	55.6
Missing	1,207	0.16	4.1	1.0	3.5	9.0	0.2	4.6	12.8	7.0	46.2
Renal failure											
No	731,626	94.42	2.1	1.3	3.2	9.0	0.4	5.0	13.4	5.0	52.8
Yes	42,153	5.44	7.2	2.7	14.7	22.5	1.0	9.9	31.9	15.8	23.4
Missing	1,102	0.14	3.1	0.8	2.8	7.4	0.3	3.4	10.8	6.4	46.6
Renal function											
Creatinine < 1.00 mg/dL	274,197	35.39	1.6	1.1	1.5	8.0	0.3	4.4	11.2	4.0	55.6
Creatinine 1–1.49 mg/dL	398,833	51.47	2.0	1.3	3.4	8.9	0.4	5.0	13.5	4.9	53.1
Creatinine 1.5–1.99 mg/dL	57,779	7.46	4.5	2.3	10.8	16.1	0.7	7.8	25.2	10.6	34.5
Creatinine 2.0–2.49 mg/dL	12,463	1.61	6.9	2.9	14.3	21.3	0.9	9.4	31.5	15.3	24.7
Creatinine ≥ 2.5 mg/dL	7,906	1.02	8.2	3.2	20.4	23.4	0.9	11.1	37.9	18.6	20.4
Dialysis	12,415	1.60	8.4	2.7	*NA	25.3	1.2	10.5	31.5	16.4	19.6
Missing	11,288	1.46	3.3	1.2	3.1	7.6	0.3	4.3	12.9	5.9	50.1
Immunosuppressive treatment											
No	758,368	97.87	2.3	1.4	3.6	9.6	0.4	5.2	14.2	5.4	51.5
Yes	14,976	1.93	5.4	1.8	6.3	15.6	0.8	8.7	22.5	10.8	37.0
Missing	1,537	0.20	3.3	0.8	2.8	6.5	0.4	4.6	11.4	6.1	46.8
Prior CABG Surgery											
No	735,033	94.86	2.2	1.4	3.5	9.4	0.4	5.1	14.1	5.4	51.7
Yes	36,693	4.74	5.3	1.6	5.8	14.7	0.5	7.5	20.9	7.8	42.6
Missing	3,155	0.41	2.7	1.1	3.3	8.9	0.5	4.8	12.9	6.8	48.9
Prior valve surgery											
No	769,434	99.30	2.3	1.4	3.6	9.7	0.4	5.2	14.4	5.5	51.3
Yes	2,280	0.29	5.9	1.9	6.8	15.3	0.7	8.6	22.5	11.1	32.0
Missing	3,167	0.41	2.9	1.2	3.5	8.6	0.5	4.4	12.7	6.3	50.0
Prior other cardiac surgery											
No	755,653	97.52	2.3	1.4	3.6	9.6	0.4	5.2	14.3	5.5	51.3
Yes	15,218	1.96	3.9	1.5	4.9	13.1	0.6	6.6	18.6	7.6	45.5
Missing	4,010	0.52	2.8	1.0	2.9	8.5	0.4	4.4	12.2	5.9	50.5
Number of previous CV surgeries											
No previous CV surgery	723,623	93.39	2.2	1.4	3.5	9.4	0.4	5.1	14.0	5.4	51.7
One prior CV surgery	40,474	5.22	4.7	1.6	5.4	13.8	0.5	7.3	19.9	7.7	44.1
Two or more prior CV Surgeries	4,840	0.62	6.2	1.4	5.6	14.7	0.6	8.0	22.0	8.4	41.5
Missing	5,944	0.77	2.9	1.1	3.2	9.8	0.6	5.5	14.3	6.1	51.2

Table 1. Continued

Variable	Number of Patients		Percent of Patients Experiencing Endpoint								
	N	%	Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
Prior PCI											
No PCI	606,824	78.31	2.3	1.4	3.6	9.5	0.4	5.1	14.2	5.6	51.1
PCI ≤ 6 hours	7,373	0.95	8.9	2.1	7.4	25.8	0.6	10.5	32.6	11.3	35.5
PCI > 6 hours	155,161	20.02	2.3	1.2	3.5	9.6	0.4	5.4	14.3	5.1	52.4
PCI-missing timing	2,456	0.32	3.0	0.6	3.3	8.0	0.8	5.1	13.4	6.8	48.9
Missing	3,067	0.40	3.3	1.0	3.0	9.8	0.5	4.7	13.7	6.2	47.3
Acuity status											
Elective	381,116	49.18	1.5	1.1	2.9	6.6	0.4	4.3	11.1	4.1	55.6
Urgent	356,287	45.98	2.4	1.5	3.9	10.8	0.5	5.6	15.7	6.2	48.5
Emergent	34,513	4.45	8.1	2.6	8.3	29.6	0.7	10.4	34.1	13.3	33.2
Emergent salvage	1,967	0.25	38.6	4.9	17.4	52.7	0.7	18.4	70.0	23.5	12.6
Missing	998	0.13	3.2	1.3	3.6	9.2	0.5	4.8	13.7	6.5	43.6
MI											
No prior MI	424,599	54.80	1.5	1.1	2.8	6.9	0.3	4.5	11.3	4.1	55.4
MI > 21 days	137,522	17.75	2.1	1.3	3.5	8.9	0.5	5.2	13.9	5.4	50.4
MI 8-21 days	26,205	3.38	4.0	1.8	6.0	14.4	0.8	7.5	20.7	10.2	38.1
MI 1-7 days	148,659	19.18	3.4	1.8	4.8	14.0	0.5	6.1	18.9	7.5	45.7
MI > 6 and < 24 hours	21,044	2.72	6.0	2.4	6.7	23.6	0.5	8.1	28.1	10.4	39.1
MI ≤ 6 hours	11,539	1.49	10.4	2.6	8.6	31.2	0.6	10.6	36.8	13.3	33.5
MI-missing timing	4,064	0.52	3.6	1.6	4.6	11.3	0.5	5.6	17.5	7.2	43.9
Missing	1,249	0.16	2.1	1.1	2.4	6.6	0.2	3.8	10.2	6.7	49.4
Angina											
No	130,143	16.80	2.5	1.4	3.8	9.5	0.4	5.6	14.7	6.2	48.5
Yes	643,815	83.09	2.3	1.3	3.6	9.7	0.4	5.2	14.3	5.4	51.8
Missing	923	0.12	2.3	1.0	2.6	8.8	0.5	4.0	11.2	8.2	43.9
Cardiogenic shock											
No	758,766	97.92	2.0	1.3	3.4	8.9	0.4	5.0	13.6	5.2	51.9
Yes	14,919	1.93	18.0	3.6	14.6	49.6	1.0	15.3	55.7	23.1	18.3
Missing	1,196	0.15	2.7	1.1	3.2	8.0	0.4	4.4	12.0	7.4	44.7
Resuscitation											
No	766,674	98.94	2.2	1.3	3.5	9.4	0.4	5.1	14.1	5.4	51.5
Yes	6,939	0.90	17.1	3.0	11.4	37.5	0.9	14.0	46.1	18.2	24.3
Missing	1,268	0.16	2.2	0.8	3.4	8.0	0.6	3.9	11.5	7.3	45.0
Arrhythmia											
No arrhythmia	706,709	91.20	2.0	1.3	3.3	8.9	0.4	4.9	13.4	5.0	53.1
AFib/flutter	39,125	5.05	5.4	2.3	7.1	16.4	0.7	8.5	23.8	11.9	29.4
Heart block	10,026	1.29	5.8	1.9	6.8	16.8	0.6	9.2	24.2	9.4	36.4
Sustained VT/VF	14,336	1.85	8.2	2.0	6.8	23.8	0.6	11.1	31.5	12.0	33.0
Arrhythmia—other	1,853	0.24	3.8	1.6	5.3	12.9	0.6	6.5	19.1	7.3	39.2
Arrhythmia—missing type	1,344	0.17	3.9	1.7	4.4	11.9	0.7	7.3	17.5	8.3	37.9
Missing	1,488	0.19	2.7	1.0	3.0	7.1	0.5	3.8	11.1	6.5	45.5
Preoperative IABP											
No	714,824	92.25	2.0	1.3	3.3	8.0	0.4	4.9	12.8	4.9	52.8
Yes	58,134	7.50	6.9	2.2	7.7	30.8	0.6	9.6	34.4	12.9	32.0
Missing	1,923	0.25	4.2	1.7	4.3	10.9	0.6	5.8	16.0	7.2	45.7
NYHA class											
I	97,812	12.62	1.5	1.1	2.5	6.3	0.3	4.4	10.6	3.9	57.0
II	187,947	24.25	1.3	1.1	2.6	6.5	0.3	4.2	10.7	3.8	56.5
III	287,760	37.14	2.0	1.3	3.6	9.0	0.4	5.0	13.9	5.4	51.3
IV	165,325	21.34	4.5	1.9	5.5	16.6	0.6	7.1	21.9	8.8	42.5
Missing	36,037	4.65	2.4	1.2	3.6	8.9	0.3	5.3	13.6	5.8	47.7
Congestive heart failure											
No	666,592	86.03	1.8	1.2	2.9	7.9	0.3	4.7	12.2	4.3	54.7
Yes	106,700	13.77	5.9	2.4	8.5	21.0	0.9	8.7	28.0	13.2	29.5
Missing	1,589	0.21	3.3	1.4	3.1	9.2	0.4	4.5	13.0	7.4	49.6

Table 1. Continued

Variable	Number of Patients		Percent of Patients Experiencing Endpoint								
	N	%	Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
Number of diseased coronary vessels											
None	2,012	0.26	2.3	0.4	2.8	8.9	0.4	4.6	12.6	5.5	53.1
One	32,311	4.17	1.5	0.6	1.9	6.1	0.2	4.4	9.8	3.1	66.3
Two	150,881	19.47	1.8	1.0	2.7	8.0	0.4	4.5	12.0	4.5	56.3
Three	586,658	75.71	2.5	1.5	4.0	10.4	0.4	5.5	15.3	6.0	49.1
Missing	3,019	0.39	2.6	0.6	1.8	5.5	0.2	4.5	10.8	5.9	54.2
Left main disease \geq 50%											
No	554,355	71.54	2.1	1.3	3.4	8.8	0.4	5.0	13.5	5.1	52.7
Yes	217,548	28.08	3.0	1.5	4.3	11.9	0.5	5.9	16.8	6.6	47.6
Missing	2,978	0.38	2.3	1.4	2.7	6.3	0.3	5.5	11.9	5.9	45.4
Ejection fraction (%)											
< 25	25,323	3.27	7.2	2.2	8.0	25.2	0.8	10.5	31.9	13.7	27.8
25-34	57,460	7.42	4.6	2.1	6.1	17.6	0.6	7.6	23.8	10.3	36.8
35-44	108,623	14.02	3.0	1.7	4.7	12.4	0.6	6.0	17.5	7.2	45.7
45-54	189,478	24.45	1.9	1.3	3.4	8.7	0.4	4.8	13.2	5.0	53.1
\geq 55	351,455	45.36	1.5	1.1	2.7	6.8	0.3	4.4	11.1	3.9	56.1
Missing	42,542	5.49	3.4	1.4	4.1	10.8	0.4	5.6	16.0	6.1	50.0
Mitral stenosis											
No	756,609	97.64	2.3	1.4	3.6	9.7	0.4	5.2	14.4	5.5	51.2
Yes	2,703	0.35	5.5	2.4	6.4	17.0	0.7	7.5	22.9	10.5	35.7
Missing	15,569	2.01	2.1	1.3	3.4	8.3	0.4	4.6	13.1	5.0	53.1
Aortic stenosis											
No	750,185	96.81	2.3	1.4	3.6	9.6	0.4	5.2	14.3	5.5	51.4
Yes	11,386	1.47	4.7	2.1	6.5	14.8	0.7	7.9	21.5	9.7	36.6
Missing	13,310	1.72	2.3	1.3	3.3	8.5	0.4	4.7	13.1	5.0	52.5
Tricuspid stenosis											
No	756,574	97.64	2.3	1.4	3.6	9.7	0.4	5.2	14.4	5.6	51.2
Yes	597	0.08	3.4	2.3	6.6	14.9	0.7	6.0	20.9	10.1	43.6
Missing	17,710	2.29	2.1	1.3	3.6	8.5	0.4	4.7	13.4	5.0	53.2
Pulmonic stenosis											
No	753,975	97.30	2.3	1.4	3.6	9.7	0.4	5.2	14.4	5.6	51.2
Yes	445	0.06	3.4	2.2	3.9	12.6	0.0	6.3	20.2	6.3	49.4
Missing	20,461	2.64	2.2	1.4	3.8	8.7	0.4	5.0	13.9	5.3	52.5
Mitral insufficiency											
None	622,173	80.29	2.1	1.2	3.3	8.9	0.4	4.9	13.4	5.0	53.2
Trivial	49,152	6.34	2.4	1.6	4.2	10.5	0.4	5.7	15.7	6.2	47.9
Mild	60,811	7.85	3.7	2.0	5.7	14.3	0.5	6.9	20.3	8.6	40.3
Moderate	16,723	2.16	6.7	2.7	7.9	20.1	0.7	9.6	28.0	12.5	30.3
Severe	2,143	0.28	8.7	3.1	8.9	24.1	0.6	11.0	32.6	15.1	28.2
Missing	23,879	3.08	2.1	1.2	3.0	7.5	0.4	4.7	12.0	5.2	51.5
Aortic insufficiency											
None	705,771	91.08	2.3	1.3	3.5	9.5	0.4	5.1	14.1	5.4	51.9
Trivial	17,988	2.32	3.6	2.1	5.6	13.4	0.5	7.0	19.4	8.3	40.9
Mild	18,571	2.40	4.1	2.2	5.9	14.3	0.4	7.3	20.8	9.0	37.9
Moderate	3,576	0.46	5.3	2.6	7.0	16.2	0.5	7.9	23.2	10.2	32.8
Severe	411	0.05	7.1	1.9	6.7	15.6	0.7	9.5	25.8	10.9	37.2
Missing	28,564	3.69	2.1	1.2	3.2	7.9	0.4	4.6	12.5	5.3	51.4
Tricuspid insufficiency											
None	675,778	87.21	2.2	1.3	3.4	9.4	0.4	5.1	13.9	5.3	52.1
Trivial	32,856	4.24	2.5	1.6	4.5	11.1	0.4	6.1	16.6	6.7	47.4
Mild	29,611	3.82	3.9	2.2	5.9	14.7	0.5	7.4	21.0	9.1	39.3
Moderate	5,753	0.74	7.6	3.0	9.0	22.7	0.5	9.8	30.2	13.7	26.9
Severe	728	0.09	9.1	2.9	10.5	24.2	0.4	10.9	33.0	17.2	26.2
Missing	30,155	3.89	2.2	1.2	3.2	7.9	0.4	4.6	12.6	5.2	51.7

Table 1. Continued

Variable	Number of Patients		Percent of Patients Experiencing Endpoint								
	N	%	Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
Pulmonic insufficiency											
None	724,258	93.47	2.3	1.4	3.6	9.7	0.4	5.2	14.3	5.5	51.4
Trivial	10,726	1.38	2.8	1.5	4.3	12.3	0.5	6.5	17.3	7.3	44.8
Mild	4,867	0.63	3.8	2.1	5.6	14.1	0.4	7.4	21.0	9.1	39.7
Moderate	546	0.07	6.6	3.1	7.8	17.6	0.2	7.9	24.4	11.5	29.7
Severe	217	0.03	5.1	0.5	5.1	9.7	0.5	6.5	15.7	8.8	50.7
Missing	34,267	4.42	2.2	1.3	3.5	8.3	0.4	4.8	13.2	5.5	50.7

AFib = atrial fibrillation; CABG = coronary artery bypass graft surgery; Comp = composite adverse outcome (any); CV = cardiovascular; CVA = cerebrovascular accident (stroke); DSWI = deep sternal wound infection; IABP = intra-aortic balloon pump; MI = myocardial infarction; Mort = mortality; Na = not applicable; NYHA = New York Heart Association; PCI = percutaneous coronary intervention; PLOS = prolonged length of stay; Reop = reoperation; RF = renal failure; SLOS = short length of stay; Vent = prolonged ventilation; VF = ventricular fibrillation; VT = ventricular tachycardia.

cholesterolemia, a decision was made not to include this variable in the new models.

Predictor Frequency

For each variable, the QMTF explored the overall prevalence and missing data frequency per year. Predictor variables that are rarely present in the development sample are difficult to model. For this reason, mitral (0.35%), tricuspid (0.08%), and pulmonic stenosis (0.06%), pulmonic insufficiency (0.10%), and endocarditis (0.09%) were not considered as variables in the new isolated CABG models.

Inconsistently Coded Variables

A few variables have been collected inconsistently or with questionable reliability, often for clinically unavoidable reasons. For example, pulmonary artery mean pressure data were missing for 70% of patients during 2002 to 2006. Furthermore, the value of this continuous variable may vary substantially depending on the clinical state and volume-loading status of the patient when the measurement is obtained. Because of these concerns, pulmonary artery pressure was not included in the models.

Derived or Redundant Variables

Several derived variables were considered for inclusion in the models. For example, body mass index (BMI) is a useful measure of overall body habitus. However, because BMI is highly correlated with body surface area (BSA), the more commonly used anthropometric measure in most previous STS models, the latter was retained in the new models. Similarly, there is a theoretical superiority to inclusion of glomerular filtration rate (GFR) rather than serum creatinine as a measure of renal function. However, the Modification of Diet in Renal Disease formula for estimating GFR is a complex function of creatinine, race, sex, and age, and not all laboratories perform this calculation automatically. Furthermore, as age, sex, and race are already model covariates, using GFR would complicate the interpretation of their regression coefficients. Some of the prognostic value of GFR

comes from these variables that are already included in the model. Finally, previous studies suggest that various measures of renal function used in CABG mortality risk models have similar performance [19]. For all these reasons, serum creatinine was retained as the measure of renal function.

Controversial Variables

RACE. Several variables raised particular clinical, statistical, or health policy issues. For example, race was an obvious candidate variable because it was a significant predictor ($p < 0.001$) of each endpoint except mortality and because the proportion of nonwhite patients varied substantially across institutions. In exploratory analyses, the association between race and outcomes persisted after adjusting for hospital identity, suggesting that this association is not explained by differences in hospital quality.

However, general principles of risk model development complicated the decision as to whether or not to include race in the models. When the dominant purpose of a risk model is adjustment of provider results, it is advisable to include only biological and clinical patient variables that are present before a patient's first contact with the provider. In this context, race is clearly a fixed biological characteristic, but its impact on patient outcomes may be mediated through other mechanisms. It is possible that certain racial and ethnic groups have worse outcomes not because of inherent biological characteristics but because of differences in the quality of care delivered to them. In this case, including race and ethnicity in a risk model could essentially select out or obscure the very disparity issues that society wishes to identify and correct. Inclusion of race and ethnicity in a risk model would say, in effect, that we expect nonwhites to have inferior results and would make an allowance for providers who care for such patients, just as we would for providers who care for patients in cardiogenic shock.

After deliberation regarding the pros and cons, the QMTF ultimately elected to retain race and ethnicity in the new models because of their impact on outcomes,

Table 2. Initial List of Potential Candidate Variables

Demographics

1. Age
2. Sex
3. Race (black, Caucasian, Hispanic, Asian, Native American, other)

Note: Data collection changed in v2.61. New version allows for multiple races (check all that apply). Added Hawaiian/Pacific Islander category. Hispanic ethnicity is a separate variable.

Anthropometric

4. Height
5. Weight

Status

6. Status (elective, urgent, emergent, salvage)
7. Shock
8. Resuscitation

Cardiac variables

9. Angina, angina type (STS categories are unstable, stable, no angina)

Note: Angina was removed on v2.61 data collection form. The new form has a variable called "cardiac presentation on admission." Angina is one of possible response categories to that field.

10. New York Heart Association functional class

Note: In v2.61, NYHA class is only collected if patient has congestive heart failure.

11. Arrhythmia and arrhythmia type (sustained VT/VF; heart block; AFib/flutter, None)
12. Myocardial infarction timing: (≤ 6 , > 6 and < 24 hours; 1–7, 8–21, > 21 days)

Hemodynamic/catheterization variables

13. Ejection fraction
14. Number of diseased vessels (0, 1, 2, 3)
15. Left main disease
16. Pulmonary artery mean pressure
17. Mitral stenosis
18. Aortic stenosis
19. Tricuspid stenosis
20. Pulmonic stenosis
21. Mitral insufficiency (none, trivial, mild, moderate, severe)
22. Aortic insufficiency (none, trivial, mild, moderate, severe)
23. Tricuspid insufficiency (none, trivial, mild, moderate, severe)
24. Pulmonic insufficiency (none, trivial, mild, moderate, severe)

Comorbidities

25. Serum creatinine
26. Dialysis
27. Renal failure
28. Endocarditis (active, treated, none)
29. Diabetes and treatment (insulin, oral, diet, untreated, no diabetes)
30. Chronic lung disease (none, mild, moderate, severe)
31. Congestive heart failure
32. Peripheral vascular disease
33. Cerebrovascular disease
34. CVA and CVA timing (recent, remote, none)

Note: CVA is a child field of cerebrovascular disease in v2.61.

35. Hypercholesterolemia (v2.35, v2.41) and Dyslipidemia (v2.52)

Note: Data from all 3 versions were merged and analyzed under the variable name "hypercholesterolemia."

36. Hypertension
37. Smoker

Note: Major definition change in v2.61.

Preoperative interventions

38. Preoperative intra-aortic balloon pump
39. Preoperative inotropes
40. Immunosuppressive treatment
41. Prior percutaneous coronary intervention and timing (≤ 6 hours, > 6 hours, none)

Previous Interventions

42. Prior coronary artery bypass graft surgery
43. Prior valve surgery
44. Prior other cardiac surgery
45. Number of previous cardiovascular surgeries

while recognizing the potential limitations of this decision.

PREOPERATIVE INTRA-AORTIC BALLOON PUMP. Preoperative intra-aortic balloon pump (IABP) is a proxy for more serious preoperative status of the patient (eg, unstable angina, ventricular dysfunction). It captures information that may not be present in other data elements, and it is associated with higher risk of postoperative morbidity and mortality. For these reasons, most CABG risk models include preoperative IABP as a risk predictor. However, placement of an IABP is also a highly discretionary care process the frequency of which varies widely among participating institutions. Indications are subjective and are often dictated by the cardiologist before even referring the patient for cardiac surgery. Based on CABG risk models, an institution that liberally utilizes IABPs will have a higher expected risk of morbidity and mortality (according to the model) compared with another institution with a similar case-mix but a more restrictive IABP policy. That would impact their relative O/E ratios and risk-adjusted outcomes.

Despite its discretionary nature (and the potential for gaming), the QMTF decided to retain IABP use in the models because it is such an important predictor. Ultimately, it was elected to model preoperative IABP as a joint variable with preoperative inotrope use as an overall measure of preoperative acuity/severity.

Review of External Sources

The QMTF also reviewed multiple external resources to aid in the selection of potential candidate variables [15, 16, 20]. First, all previous versions of the STS CABG risk models were reviewed. The QMTF also examined other CABG risk models including the European System for Cardiac Operative Risk Evaluation (EuroSCORE) [21], the New York Cardiac Surgery Reporting System [22], the Veterans Affairs Administration cardiac surgery models [23, 24], and the Northern New England Cardiovascular Disease Study Group model [25, 26]. We particularly wanted to identify variables that were found in some form across all the risk models. Subject to the constraints of version 2.61 data specifications, we made a special effort to include such variables in the new STS risk models, in some instances requiring us to “force” them into the models, as described in the section on the final variable selection procedure.

Missing Data

Missing data in the STS NCD are rare, having a frequency of less than 1% for most variables. Candidate predictor variables missing most commonly were ejection fraction (5.5%), New York Heart Association (NYHA) class (4.7%), tricuspid insufficiency (3.9%), aortic insufficiency (3.7%), mitral insufficiency (3.1%), aortic stenosis (1.7%), and creatinine/dialysis (1.5%).

Missing predictor values in the STS NCD were managed using imputation. Multiple imputation is the generally preferred statistical method [27], but single imputation was also considered based on the following

practical considerations: (a) the fraction of missing data in the STS NCD was small and, hence, single and multiple imputation would likely give similar point estimates; (b) a slight adjustment to the standard errors would not impact the study conclusions or the published risk algorithms; (c) the large sample size would make multiple imputation less practical to implement because of long computational times.

Prior to selecting an imputation strategy, exploratory analyses were performed using CABG data from 2002 to 2003 to compare single versus multiple imputation results for predicting mortality. These analyses confirmed that the choice between single versus multiple imputation would have only a slight impact on regression coefficients. For example, the estimated odds ratio for a 5-unit increase in ejection fraction was 0.90 (with a 95% confidence interval extending from 0.83 to 0.97) under single imputation and was 0.92 (with a confidence interval extending from 0.85 to 0.99) under multiple imputation. Other variables were missing less frequently than ejection fraction and were even less sensitive to the choice between single versus multiple imputation. Additional analyses of missing data consisted of reestimating the final model coefficients using single versus multiple imputation and comparing results. A summary of these investigations, as well as model coefficients and covariance matrices, are available at www.sts.org/riskmodels. For most patients, if risk were calculated using the multiple imputation model instead of single imputation, the relative change in their risk estimate would only be 1% to 2% (eg, 5% to 5.1% is a 2% change).

Based on the considerations described above, single imputation was used with the following specific rules: (1) binary (yes/no) risk factors were modeled as yes versus no or missing. Missing data for such variables usually implies their absence, and for most binary variables the composite event rates were similar for “no” and “missing” categories; (2) missing data on categorical predictor variables were imputed to the lowest risk value, which, in most instances, was the mode. In most instances, composite event rates for patients with missing data were among the lowest. It is the policy of the STS Data Warehouse and Analysis Center to discourage missing data through this default coding practice; and (3) missing data on continuous predictor variables were imputed to the conditional median. For ejection fraction, we conditioned on congestive heart failure (CHF) and sex. For BSA, we conditioned on sex. For serum creatinine, we conditioned on renal failure (although this approach will be modified when the model is ultimately applied to version 2.61 data, as renal failure has been removed).

For model endpoints (eg, mortality), missing data were handled by modeling yes versus no or missing. Thus, cases with missing data for an endpoint were analyzed as if the endpoint did not occur. Complete case analysis was not used because “missing” was not considered to be consistently coded for these variables. For example, some STS data managers have reported that they set complications to “no” unless there is explicit documentation in the medical record that the complication occurred. Other

data managers may leave the field missing unless there is explicit documentation that the complication did not occur. Thus, missing data may reflect differences in coding practices rather than truly unknown or missing data.

Preliminary Analyses for Ordinal Categorical Variables and Continuous Variables

The QMTF conducted preliminary analyses to determine how best to model ordinal categorical variables and continuous variables. Categorical variables were entered into a logistic regression model by including a separate parameter for each category. Continuous variables were entered as piecewise linear functions (splines) with several changes of slope (knots). Terms were then removed one at a time using backward selection based on the Wald statistic. At each iteration, either two adjacent categories were collapsed into a single category or else two adjacent line segments were collapsed into a single line with no change of slope. The backward selection terminated when all adjacent categories and slopes were statistically different from one another at $p < 0.001$. This variable selection routine was performed separately for each endpoint. An expert panel determined the final coding based on the results of the backwards selection algorithm, supplemented by their clinical judgment and practical considerations. Table 3 summarizes these coding decisions.

Specific Coding Decisions

RACE AND ETHNICITY. In versions 2.35, 2.41, and 2.52.1, race was collected by choosing one of the following mutually exclusive response categories: Caucasian, black, Hispanic, Asian, Native American, and other. In version 2.61, the data collection form was modified to conform to standards adopted by the US Census Bureau. It allows for selecting one or more races per patient (ie, select all that apply), and treats ethnicity (Hispanic versus non-Hispanic) as a separate variable. Because of these differences, the mapping of race among data versions is not straightforward.

Ultimately, the QMTF decided to model race as black, Asian, Hispanic, and Caucasian/other (collapsed). Initially, these categories will be mapped to version 2.61 as follows: (1) black will include all black patients, regardless of ethnicity or additional races; (2) Hispanic will include all nonblack Hispanic patients; (3) Asian will include all Asian patients who are not also identified as black or Hispanic; and (4) all remaining patients will be placed in the Caucasian/other category. The validity of this mapping will be assessed once 2.61 data become available and future versions could employ race “bridging” methodologies.

BODY SURFACE AREA. Height and weight were replaced by BSA, which was modeled as a quadratic trend to allow for a possible U-shaped relationship with outcomes (eg, extreme obesity and cachexia). This quadratic polynomial was modeled separately for males and females. Any BSA values below 1.4 or above 2.6 were mapped to these

values respectively, which represent the approximate 1st and 99th percentiles of the empirical distribution.

ANGINA. Version 2.61 of the data collection form eliminates angina and substitutes a new variable called “cardiac presentation on admission,” within which unstable angina is one of the possible response categories. The QMTF believed that unstable angina would be coded more consistently than any other angina class, and also that this was the most important type of angina presentation to include in the models. Angina coding was therefore restricted in the new risk models to “unstable angina without MI < 7 days (yes/no).” It was necessary to exclude patients with myocardial infarction less than 7 days because the new version 2.61 does not permit simultaneous coding of angina and acute myocardial infarction.

REOPERATIVE STATUS. The most important consideration with regard to reoperative status is the number of prior sternotomies, irrespective of the specific type of procedure performed. The revised models replaced prior CABG, prior valve, and prior “other” cardiac surgery with simply the number of previous cardiovascular surgeries.

ACUITY STATUS. The new models combine resuscitation with salvage status. By definition, all salvage patients should have resuscitation coded “yes.”

NUMBER OF DISEASED CORONARY VESSELS. Outcomes are modeled using the number of diseased vessels (grouped as 0 or 1 versus 2 versus 3), as a linear effect across the three categories. This approach is consistent with the previous STS CABG models and was supported by the data.

NYHA CLASS. Version 2.61 uses NYHA class as a subfield of CHF. The grouping of NYHA IV versus less than IV (I-III) classes is consistent with all existing STS models. The final categories were no CHF, CHF not NYHA IV, and CHF plus NYHA IV.

AGE. Age was modeled as a linear spline with knots at ages 50 and 60 years.

EJECTION FRACTION. Ejection fraction (EF) was modeled linearly, and EFs below 10% and above 50% were mapped to these values respectively. Only 0.03% of patients have EFs lower than 10%; such values are considered invalid and are treated like missing data. The coding decision regarding EF values above 50% was based on preliminary analyses in which the data were used to suggest the functional form of continuous variables.

CREATININE. Creatinine was modeled as a linear spline with knots at 1.0 and 1.5. Creatinine levels less than 0.5 or greater than 5.0 were mapped to these values respectively, which represent the approximate 1st and 99th percentiles of the empirical distribution.

MORTALITY AND LENGTH OF STAY. The QMTF changed the previous STS definition of the “short postoperative length of stay (SLOS)” endpoint. The original definition did not specifically exclude early postoperative deaths, and such patients could have been inappropriately included with the remaining SLOS patients who had a particularly short and uncomplicated postoperative course. In the new models, patients who die within 5 days of surgery are included in the analysis but are not counted as a short stay.

Table 3. Final List of Candidate Variables and Coding For STS Risk Models

Candidate Variables	Coding
Continuous variables	
Age ^a	Linear spline with knots at 50 and 60.
Ejection fraction ^a	Linear; values > 50 are mapped to 50. Only 0.03% of patients have ejection fraction < 10, and that is presumed to be a data entry error; these values are considered invalid and are treated like missing data. The decision to consolidate values > 50 was based on initial exploratory analyses in which data were used to suggest the functional form of continuous variables.
Body surface area ^a	Quadratic polynomial modeled separately for males and females. Note: body surface areas < 1.4 and > 2.6 were mapped to these values, respectively. ^c
Creatinine ^a	Linear spline with knots at 1.0 and 1.5. (Only for patients not on dialysis.) Note: Creatinine values < 0.5 and > 5.0 were mapped to these values, respectively. ^d
Time trend ^a	Ordinal categorical variable with separate category for each 6-month harvest interval.
Binary variables	
Dialysis ^a	Yes/no
Preoperative atrial fibrillation ^b	Yes/no
Shock	Yes/no
Female ^a	Yes/no
Hypertension	Yes/no
Immunosuppressive treatment	Yes/no
Percutaneous coronary intervention ≤ 6 hours	Yes/no
Preoperative intra-aortic balloon pump or inotropes	Yes/no
Peripheral vascular disease	Yes/no
Unstable angina (no myocardial infarction < 7 days)	Yes/no
Left main disease	Yes/no
Aortic stenosis	Yes/no
Aortic insufficiency	Defined as at least moderate (yes/no)
Mitral insufficiency	Defined as at least moderate (yes/no)
Tricuspid insufficiency	Defined as at least moderate (yes/no)
Categorical variables	
Chronic lung disease	4 groups: (1) none, (2) mild, (3) moderate, (4) severe
CVD/CVA	3 groups: (1) no CVD, (2) CVD no CVA, (3) CVD + CVA
Diabetes mellitus	3 groups: (1) insulin diabetes, (2) noninsulin diabetes, (3) other or no diabetes
Number diseased coronary vessels	3 groups: (1) fewer than 2 diseased vessels, (2) 2 disease vessels, (3) 3 diseased vessels; modeled as linear across the categories.
Myocardial infarction	4 groups: (1) ≤ 6 hours, (2) > 6 and < 24 hours, (3) 1 to 21 days, (4) > 21 days or no myocardial infarction.
Race	4 groups: (1) black, (2) Asian, (3) Hispanic, (4) other, including Caucasian
Status	4 groups: (1) elective, (2) urgent, (3) emergent, no resuscitation, (4) salvage or emergent with resuscitation
Previous cardiovascular operations	3 groups: 0 previous, 1 previous, 2 or more previous
CHF and NYHA class	3 groups: no CHF, CHF not NYHA IV, CHF + NYHA IV
Interactions	
Age by reoperation ^a	
Age by emergent status ^a	

^a These variables were forced into each model. ^b Preoperative atrial fibrillation was forced into the model for stroke. ^c These are the approximate 1st and 99th percentiles of the empirical distribution. Values less than 1.4 were mapped to 1.4. Values greater than 2.6 were mapped to 2.6. Estimates in the extreme tails of the body surface area distribution are highly influenced by data from other regions of the body surface area distribution (owing to use of a parametric, quadratic model) and may not be reliable. ^d These are approximately the 1st and 99th percentiles of the empirical distribution. Although we used a flexible spline model, linear splines can have unreliable extreme results in the tails due to the assumption that the effect is linear above the largest knot and below the smallest knot.

CHF = congestive heart failure; CVA = cerebrovascular accident; CVD = cerebrovascular disease; NYHA = New York Heart Association.

Table 4. Discrimination of Models (C-Index)

New STS models—development sample (C-index)								
Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
0.810	0.716	0.795	0.756	0.706	0.657	0.724	0.769	0.727
New STS models—validation sample (C-index)								
Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
0.812	0.720	0.793	0.754	0.689	0.653	0.725	0.767	0.726
Old STS models—validation sample (C-index)								
Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
0.807	0.713	0.750	0.742	0.672	0.645	0.711	0.754	0.713

Comp = composite adverse outcome (any); CVA = stroke; DSWI = deep sternal wound infection; Mort = mortality; PLOS = prolonged length of stay; Reop = reoperation; RF = renal failure; SLOS = short length of stay; STS = The Society of Thoracic Surgeons; Vent = prolonged ventilation.

Final Variable Selection Procedure

Backward Selection

Using the remaining candidate variables and the coding schemes described previously, a supervised backward selection approach was then performed. Initial variable selection used the Wald χ^2 statistic with a significance criterion of 0.001. This high level of significance was chosen because of the very large sample size that resulted in quite small *p* values. An expert panel of cardiothoracic surgeons and biostatisticians then reviewed the selected variables and made several modifications. Measures of model performance (discrimination and calibration) were similar when all variables were retained in the models regardless of statistical significance or expert panel review.

Forced Variables

Several variables were included in the models regardless of statistical significance. These included all of the continuous variables (age, BSA, date of surgery [in 6-month intervals], creatinine, ejection fraction), plus sex and dialysis. In addition, atrial fibrillation was included a priori in the model for permanent stroke.

The rationale for including surgery date, a nonmodifiable variable of no intrinsic interest, was to adjust for changes in the frequency of adverse outcomes over the 5-year study period. We adjusted for surgery date to reduce potential confounding by time trends when estimating regression coefficients for variables that are of primary interest, such as preoperative clinical characteristics. For example, temporal changes in the frequency of coding for dyslipidemia, if they occur coincidentally with a secular declining trend in mortality rates, may lead to the unwarranted causal inferences unless there is adjustment for surgery date.

Date of surgery was categorized by 6-month intervals (corresponding to STS data harvests) and modeled as a linear trend across the ordinal categories. Surgery date is not included in the final risk algorithm and a patient's predicted risk is not dependent upon it. The intercept

parameter published in the Appendix has been adjusted to incorporate the time trend, and it reflects the baseline risk for a reference period of July to December 2006.

Interaction Terms

These models focused on main effects, and the final models included only four sets of preselected variable interactions: (1) sex by BSA; (2) sex by BSA squared; (3) age by reoperation; (4) age by emergent status. More extensive investigation for interactions was considered, including nonlinear, machine-learning approaches. However, the incremental value of such approaches remains uncertain [28], and interpretability can also become more problematic with numerous interaction terms.

Although multiple terms were allotted for modeling the main effects of age and reoperation, only a single degree of freedom was allotted for their interaction. The models defined a single variable interaction term for age and reoperation. It was equal to the patient's age minus 50 if the patient was at least 50 years old and had a previous CV surgery; otherwise it was equal to zero. This term represents the difference in the change of the slope of age at age 50 for patients who have had at least one previous CV surgery compared with patients who have not had a previous CV surgery. Similarly, only one degree of freedom was allotted for the interaction between age and status. The interaction represents the difference in the change of the slope of age at age 50 for patients with emergent or salvage status compared with patients with elective or urgent status. Although these interaction terms complicate the interpretation of other model variables, this was considered to be acceptable because the main focus of the analysis was prediction, not effect estimation.

Results

Model Performance

Table 4 presents the discrimination of each of the isolated CABG models as well as a comparison with the previous

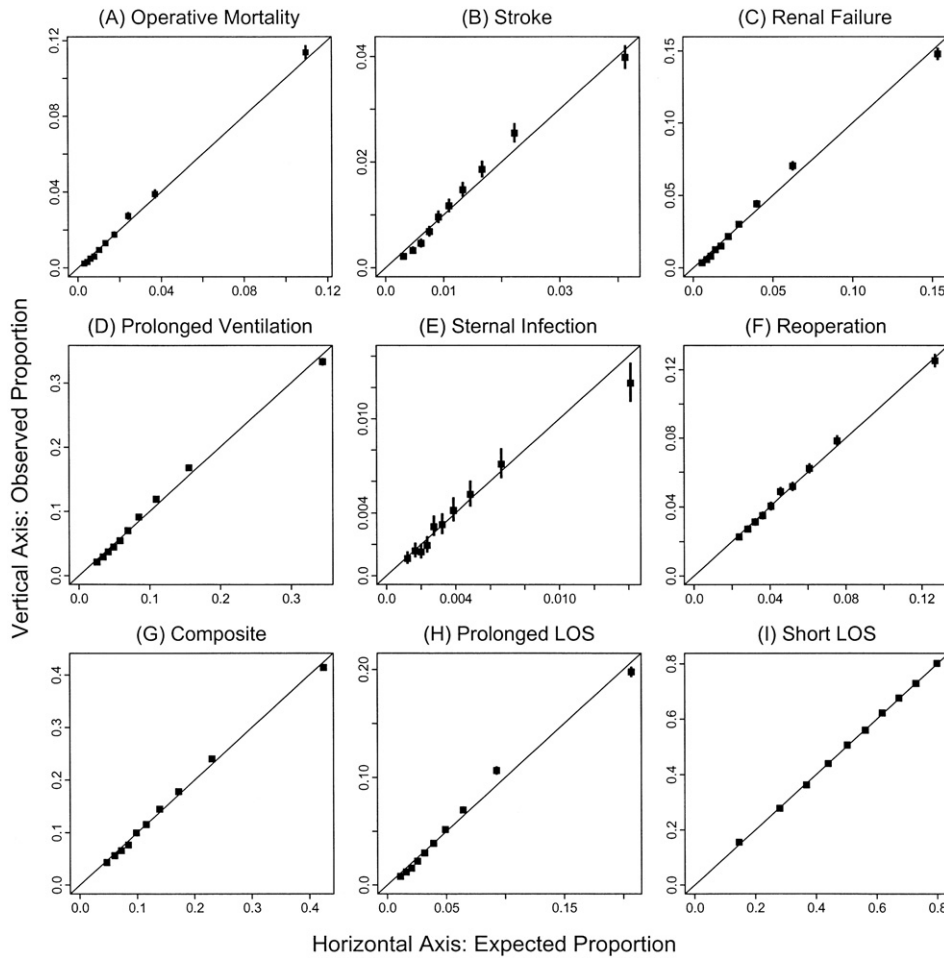


Fig 1. Plots of observed (O) versus expected (E) in validation sample

STS CABG risk models. For the new CABG models, discrimination ranged from 0.657 to 0.810 in the development sample and from 0.653 to 0.812 in the validation sample. The close agreement between c-indices from the development and validation samples reflects the large sample size and suggests that the models did not overfit the data. When the discrimination of the new and previous STS models were compared using the validation sample, the c-index of the new model was larger for each endpoint.

The Hosmer-Lemeshow test is not reported as an overall measure of calibration for these models because of its sensitivity to sample size. With samples as large as those used to develop these models, the null hypothesis will inevitably be proven false, given that all such models are only approximations [29]. As an alternative to such global measures of calibration, Figure 1 shows plots of observed versus expected event proportions within deciles of predicted risk for a variety of endpoints. For each endpoint, the absolute difference between the observed and expected proportions was less than 1.5% in each decile category. Additional analyses of model fit and discrimination are available online at www.sts.org/riskmodels.

Final Models

After calculating these measures of model performance, the final regression coefficients were estimated from the combined training and validation samples. Odds ratios for each predictor variable and model endpoint are summarized in Table 5. “Not applicable” indicates that the specific predictor was not included in a particular risk model. These final models were estimated using generalized estimating equations with empirical (sandwich) standard error estimates to account for clustering of patients within institutions [30]. An independence working correlation matrix was used to apply the generalized estimating equations method. With this approach, the estimated regression coefficients were identical to those obtained using ordinary logistic regression, but the standard errors were adjusted to account for correlated observations within hospitals.

Final Model Intercept and Coefficients

The Appendix contains the algorithm, intercept and coefficients for the final STS 2008 CABG risk models. The variance/covariance matrix is available on the web at www.sts.org/riskmodels. An on-line risk calculator is available at <http://209.220.160.181/STSTWebRiskCalc261/>.

Table 5. Estimated Odds Ratios for CABG Mortality, Morbidity, and Length of Stay Models

Variable	Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
Age 60 versus 50 (no reoperation, elective)	1.36 (1.24, 1.49)	1.78 (1.58, 1.99)	1.24 (1.16, 1.33)	1.06 (1.02, 1.10)	1.43 (1.23, 1.67)	1.14 (1.09, 1.19)	1.08 (1.05, 1.11)	1.35 (1.27, 1.43)	0.77 (0.75, 0.78)
Age 70 versus 50 (no reoperation, elective)	2.53 (2.31, 2.76)	2.43 (2.19, 2.71)	1.93 (1.81, 2.07)	1.42 (1.37, 1.47)	1.70 (1.47, 1.97)	1.45 (1.39, 1.51)	1.49 (1.44, 1.53)	2.17 (2.05, 2.29)	0.44 (0.43, 0.45)
Age 80 versus 50 (no reoperation, elective)	4.70 (4.29, 5.15)	3.34 (2.99, 3.72)	3.01 (2.80, 3.24)	1.90 (1.82, 1.99)	2.02 (1.73, 2.36)	1.85 (1.76, 1.94)	2.05 (1.98, 2.12)	3.48 (3.28, 3.69)	0.25 (0.24, 0.26)
BSA 1.6 versus 2.0 among females	1.26 (1.19, 1.32)	1.15 (1.08, 1.23)	0.84 (0.80, 0.89)	1.03 (1.00, 1.06)	0.49 (0.43, 0.57)	1.23 (1.18, 1.28)	1.03 (1.01, 1.06)	0.94 (0.90, 0.97)	1.17 (1.14, 1.20)
BSA 1.6 versus 2.0 among males	1.75 (1.64, 1.86)	1.19 (1.08, 1.31)	1.24 (1.17, 1.32)	1.40 (1.34, 1.46)	0.77 (0.63, 0.93)	1.40 (1.33, 1.46)	1.35 (1.30, 1.40)	1.43 (1.36, 1.50)	0.79 (0.77, 0.82)
BSA 1.8 versus 2.0 among females	1.02 (0.99, 1.05)	1.07 (1.03, 1.11)	0.86 (0.84, 0.88)	0.95 (0.94, 0.97)	0.67 (0.63, 0.71)	1.06 (1.04, 1.08)	0.96 (0.94, 0.97)	0.90 (0.88, 0.92)	1.14 (1.13, 1.16)
BSA 1.8 versus 2.0 among males	1.20 (1.17, 1.23)	1.09 (1.05, 1.13)	1.02 (1.00, 1.04)	1.09 (1.07, 1.10)	0.85 (0.79, 0.91)	1.13 (1.11, 1.15)	1.08 (1.07, 1.09)	1.10 (1.08, 1.12)	0.96 (0.95, 0.97)
BSA 2.2 versus 2.0 among females	1.20 (1.14, 1.27)	0.95 (0.88, 1.02)	1.32 (1.27, 1.37)	1.18 (1.15, 1.22)	1.62 (1.51, 1.74)	1.03 (1.00, 1.07)	1.19 (1.16, 1.21)	1.28 (1.24, 1.32)	0.78 (0.77, 0.80)
BSA 2.2 versus 2.0 among males	1.01 (0.99, 1.03)	0.92 (0.90, 0.95)	1.17 (1.15, 1.19)	1.10 (1.08, 1.11)	1.27 (1.22, 1.32)	0.97 (0.96, 0.99)	1.07 (1.06, 1.08)	1.08 (1.07, 1.10)	0.90 (0.89, 0.91)
Creatinine 1.5 versus 1.0	1.66 (1.57, 1.76)	1.39 (1.30, 1.49)	3.36 (3.16, 3.58)	1.56 (1.51, 1.62)	1.44 (1.28, 1.62)	1.33 (1.28, 1.38)	1.76 (1.70, 1.82)	1.65 (1.59, 1.72)	0.69 (0.67, 0.71)
Creatinine 2.0 versus 1.0	1.94 (1.84, 2.04)	1.49 (1.39, 1.58)	4.06 (3.83, 4.31)	1.73 (1.68, 1.79)	1.47 (1.30, 1.65)	1.44 (1.40, 1.49)	2.05 (1.98, 2.11)	1.92 (1.86, 2.00)	0.55 (0.53, 0.57)
Creatinine 2.5 versus 1.0	2.26 (2.14, 2.39)	1.59 (1.47, 1.71)	4.90 (4.61, 5.21)	1.92 (1.85, 1.99)	1.50 (1.30, 1.72)	1.57 (1.51, 1.64)	2.39 (2.30, 2.48)	2.24 (2.15, 2.34)	0.44 (0.42, 0.46)
Dialysis versus no dialysis and creatinine = 1.0	3.84 (3.54, 4.16)	1.67 (1.48, 1.88)	NA	2.85 (2.68, 3.03)	2.13 (1.78, 2.56)	1.86 (1.73, 2.00)	2.46 (2.33, 2.60)	2.80 (2.63, 2.98)	0.27 (0.25, 0.29)
EF per 10-unit decrease	1.19 (1.17, 1.22)	1.14 (1.11, 1.16)	1.08 (1.06, 1.10)	1.18 (1.16, 1.20)	1.11 (1.07, 1.16)	1.11 (1.09, 1.13)	1.16 (1.15, 1.18)	1.17 (1.15, 1.19)	0.84 (0.83, 0.85)
Preoperative atrial fibrillation	1.36 (1.28, 1.44)	1.21 (1.12, 1.30)	1.24 (1.18, 1.30)	1.20 (1.16, 1.24)	NA	1.26 (1.21, 1.31)	1.24 (1.21, 1.28)	1.42 (1.37, 1.48)	0.61 (0.59, 0.63)
CHF not NYHA IV	1.21 (1.15, 1.28)	NA	1.36 (1.30, 1.43)	1.31 (1.26, 1.35)	1.33 (1.19, 1.48)	1.16 (1.11, 1.21)	1.27 (1.23, 1.31)	1.43 (1.38, 1.48)	0.72 (0.70, 0.75)
CHF NYHA IV	1.39 (1.31, 1.47)	NA	1.35 (1.28, 1.42)	1.52 (1.45, 1.59)	1.45 (1.25, 1.67)	1.26 (1.20, 1.32)	1.48 (1.42, 1.54)	1.50 (1.44, 1.57)	0.65 (0.61, 0.68)
Chronic lung disease, mild	1.22 (1.16, 1.29)	NA	1.14 (1.08, 1.21)	1.36 (1.31, 1.41)	1.56 (1.40, 1.73)	1.11 (1.07, 1.15)	1.23 (1.19, 1.27)	1.34 (1.29, 1.39)	0.79 (0.76, 0.82)
Chronic lung disease, moderate	1.40 (1.32, 1.49)	NA	1.25 (1.18, 1.33)	1.65 (1.57, 1.73)	1.80 (1.58, 2.06)	1.20 (1.14, 1.26)	1.42 (1.36, 1.47)	1.65 (1.58, 1.73)	0.68 (0.65, 0.71)
Chronic lung disease, severe	2.35 (2.19, 2.52)	NA	1.66 (1.54, 1.79)	2.37 (2.24, 2.51)	2.40 (2.06, 2.79)	1.54 (1.44, 1.64)	1.98 (1.90, 2.07)	2.46 (2.34, 2.60)	0.48 (0.45, 0.51)
CVD with CVA	1.31 (1.24, 1.38)	2.09 (1.96, 2.22)	1.18 (1.12, 1.23)	1.35 (1.31, 1.39)	NA	1.21 (1.17, 1.26)	1.32 (1.29, 1.36)	1.45 (1.40, 1.51)	0.70 (0.68, 0.72)

Table 5. Continued

Variable	Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
CVD without CVA	1.14 (1.08, 1.20)	1.65 (1.54, 1.75)	1.11 (1.06, 1.17)	1.15 (1.11, 1.18)	NA	1.12 (1.08, 1.17)	1.17 (1.14, 1.20)	1.14 (1.10, 1.18)	0.85 (0.81, 0.89)
Diabetes, insulin dependent	1.30 (1.24, 1.37)	1.19 (1.12, 1.27)	1.80 (1.72, 1.87)	1.22 (1.18, 1.26)	2.24 (2.02, 2.48)	1.14 (1.10, 1.18)	1.30 (1.27, 1.34)	1.59 (1.53, 1.64)	0.64 (0.62, 0.66)
Diabetes, noninsulin dependent	1.01 (0.97, 1.06)	1.16 (1.11, 1.22)	1.32 (1.28, 1.36)	1.04 (1.02, 1.07)	1.38 (1.27, 1.49)	0.98 (0.96, 1.01)	1.08 (1.06, 1.10)	1.15 (1.12, 1.17)	0.87 (0.86, 0.88)
Diseased vessels (2 versus 1, or 3 versus 2)	1.17 (1.12, 1.23)	1.35 (1.29, 1.42)	1.23 (1.19, 1.27)	1.19 (1.16, 1.22)	1.15 (1.07, 1.24)	1.07 (1.05, 1.10)	1.16 (1.14, 1.18)	1.15 (1.11, 1.18)	0.81 (0.80, 0.82)
Preoperative IABP/inotropes	1.41 (1.33, 1.49)	NA	1.43 (1.36, 1.51)	2.56 (2.42, 2.72)	NA	1.37 (1.31, 1.43)	1.96 (1.86, 2.06)	1.60 (1.53, 1.67)	0.60 (0.57, 0.63)
Shock	2.29 (2.12, 2.47)	1.38 (1.23, 1.55)	1.65 (1.54, 1.77)	2.08 (1.96, 2.21)	NA	1.43 (1.34, 1.52)	2.10 (1.99, 2.23)	1.73 (1.62, 1.84)	0.58 (0.54, 0.62)
Female versus male (at BSA = 1.8)	1.31 (1.25, 1.36)	1.32 (1.24, 1.39)	1.25 (1.21, 1.31)	1.33 (1.29, 1.36)	1.19 (1.06, 1.35)	0.90 (0.87, 0.93)	1.18 (1.15, 1.21)	1.24 (1.20, 1.28)	0.65 (0.63, 0.66)
Hypertension	NA	1.29 (1.22, 1.37)	1.25 (1.20, 1.30)	1.10 (1.08, 1.13)	NA	NA	1.12 (1.10, 1.15)	1.07 (1.04, 1.11)	0.92 (0.90, 0.94)
Immunosuppressive treatment	1.48 (1.37, 1.60)	NA	1.21 (1.12, 1.31)	1.11 (1.05, 1.18)	NA	1.32 (1.24, 1.41)	1.20 (1.14, 1.26)	1.28 (1.20, 1.37)	0.80 (0.76, 0.84)
Aortic insufficiency, moderate/severe	NA	NA	NA	NA	NA	NA	NA	NA	0.82 (0.75, 0.89)
Mitral insufficiency, moderate/severe	1.31 (1.21, 1.41)	NA	NA	1.12 (1.06, 1.18)	NA	1.24 (1.16, 1.32)	1.20 (1.15, 1.26)	1.15 (1.09, 1.22)	0.85 (0.80, 0.91)
Tricuspid insufficiency, moderate/severe	NA	NA	1.31 (1.17, 1.45)	1.28 (1.18, 1.39)	NA	NA	1.24 (1.16, 1.33)	NA	0.78 (0.71, 0.87)
PCI ≤ 6 hours	1.37 (1.24, 1.50)	NA	1.29 (1.16, 1.43)	1.21 (1.13, 1.29)	NA	1.30 (1.19, 1.42)	1.31 (1.23, 1.39)	1.17 (1.07, 1.27)	0.79 (0.74, 0.84)
Peripheral vascular disease	1.42 (1.36, 1.48)	1.32 (1.26, 1.39)	1.21 (1.17, 1.26)	1.22 (1.19, 1.26)	1.36 (1.24, 1.48)	1.24 (1.20, 1.28)	1.25 (1.22, 1.28)	1.31 (1.28, 1.35)	0.82 (0.81, 0.84)
Aortic stenosis	NA	NA	NA	1.18 (1.11, 1.26)	NA	NA	1.16 (1.10, 1.22)	1.15 (1.07, 1.23)	0.87 (0.82, 0.92)
Left main disease	NA	NA	NA	1.07 (1.04, 1.09)	NA	NA	1.04 (1.02, 1.06)	NA	NA
MI 1-21 days	1.37 (1.32, 1.44)	1.31 (1.25, 1.37)	1.27 (1.22, 1.32)	1.34 (1.29, 1.38)	NA	NA	1.23 (1.20, 1.25)	1.22 (1.18, 1.25)	0.88 (0.86, 0.90)
MI > 6 and < 24 hours	1.59 (1.46, 1.74)	1.59 (1.43, 1.76)	1.48 (1.36, 1.60)	1.59 (1.49, 1.68)	NA	NA	1.43 (1.37, 1.50)	1.31 (1.24, 1.39)	0.80 (0.76, 0.84)
MI ≤ 6 hours	1.70 (1.53, 1.89)	1.49 (1.31, 1.68)	1.43 (1.29, 1.57)	1.56 (1.45, 1.67)	NA	NA	1.44 (1.35, 1.53)	1.30 (1.21, 1.40)	0.82 (0.77, 0.87)
Time trend, per 6-month harvest interval	0.97 (0.97, 0.98)	0.97 (0.96, 0.98)	1.01 (1.00, 1.02)	1.01 (1.01, 1.02)	0.97 (0.95, 0.99)	0.99 (0.99, 1.00)	1.00 (1.00, 1.01)	1.00 (0.99, 1.01)	0.99 (0.98, 1.00)
Race Asian	NA	1.33 (1.14, 1.55)	1.08 (0.96, 1.22)	1.33 (1.21, 1.47)	1.00 (0.66, 1.51)	1.31 (1.17, 1.46)	1.23 (1.15, 1.31)	1.26 (1.13, 1.40)	0.70 (0.61, 0.81)
Race black	NA	1.41 (1.30, 1.54)	1.24 (1.16, 1.33)	1.37 (1.27, 1.48)	1.30 (1.13, 1.51)	1.21 (1.14, 1.30)	1.31 (1.24, 1.38)	1.43 (1.34, 1.51)	0.69 (0.65, 0.73)
Race Hispanic	NA	1.12 (0.98, 1.27)	1.24 (1.11, 1.39)	1.16 (1.07, 1.26)	1.30 (1.07, 1.58)	1.05 (0.97, 1.13)	1.12 (1.05, 1.19)	1.09 (0.99, 1.20)	0.85 (0.77, 0.94)

Table 5. Continued

Variable	Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
Reoperation, 1 previous operation ^a	3.13 (2.74, 3.57)	NA	1.52 (1.35, 1.71)	1.72 (1.58, 1.86)	NA	1.57 (1.43, 1.74)	1.61 (1.50, 1.72)	1.62 (1.47, 1.80)	0.72 (0.67, 0.78)
Reoperation, ≥ 2 previous operations ^a	4.19 (3.45, 5.09)	NA	1.58 (1.33, 1.87)	1.86 (1.62, 2.14)	NA	1.71 (1.44, 2.03)	1.84 (1.65, 2.05)	1.79 (1.53, 2.08)	0.64 (0.56, 0.73)
Status urgent ^a	1.16 (1.10, 1.22)	1.11 (1.06, 1.17)	1.12 (1.05, 1.19)	1.24 (1.18, 1.31)	1.20 (1.10, 1.32)	1.18 (1.13, 1.23)	1.18 (1.14, 1.22)	1.20 (1.15, 1.25)	0.86 (0.83, 0.90)
Status emergent, no resuscitation ^a	2.83 (2.52, 3.18)	2.12 (1.82, 2.48)	1.68 (1.49, 1.89)	2.14 (1.96, 2.34)	1.87 (1.46, 2.40)	1.83 (1.68, 1.99)	1.77 (1.64, 1.91)	2.12 (1.93, 2.32)	0.62 (0.58, 0.67)
Status emergent with resuscitation or salvage ^a	8.00 (6.91, 9.26)	2.51 (1.98, 3.18)	2.16 (1.82, 2.55)	3.01 (2.68, 3.38)	2.09 (1.45, 3.01)	2.34 (2.06, 2.65)	3.65 (3.26, 4.09)	2.39 (2.10, 2.72)	0.34 (0.30, 0.38)
Unstable angina	1.12 (1.07, 1.17)	NA	1.11 (1.05, 1.17)	1.05 (1.01, 1.10)	NA	NA	NA	NA	NA

^a Variable interacts with age. Reported odds ratio represents effect of risk factor for patients aged 50 years old.

BSA = body surface area; CHF = congestive heart failure; Comp = composite adverse outcome (any); CVA = cerebrovascular accident, or stroke; CVD = cerebrovascular disease; DSWI = deep sternal wound infection; EF = ejection fraction; IABP = intra-aortic balloon pump; MI = myocardial infarction; Mort = mortality; NA = not applicable; NYHA = New York Heart Association; PCI = percutaneous coronary intervention; PLOS = prolonged length of stay; PVD = peripheral vascular disease; Reop = reoperation; RF = renal failure; SLOS = short length of stay; Vent = prolonged ventilation.

Previously, the STS risk models were completely upgraded every 3 years, with annual recalibration in the interim to assure that the benchmark O/E ratio is always 1. In the near future, annual upgrades of the models are planned.

Limitations

Regardless of sample size or degree of statistical sophistication, all risk models are imperfect representations of reality. Although the STS risk models are based upon excellent clinical data and large sample sizes, there are some risk factors that are rare in the overall population but, when present, may be important predictors of outcome for specific patients. Some such variables, such as liver disease, are not included in the risk models, and the mortality risk for patients with these risk factors may be underestimated. Addition of a number of such variables will be considered at the next major specification upgrade.

There are other variables whose specifications undergo small but important changes over time, often in response to comments from STS database participants. These refinements are discussed on regular biweekly conference calls open to database participants, and suggested changes are regularly communicated to participants through a variety of means including FAQ's. With each major specification upgrade, they are incorporated into the new software specifications.

Audit is extremely important to assure the accuracy of any data registry. For the STS database and the risk models derived from it, robust audit is particularly critical as this registry is increasingly used for public reporting of outcomes and pay for performance. Studies suggest that the accuracy of the STS database is high for most important variables [31-35], although these audits are currently restricted to a limited number of sites annually because of budgetary constraints. In these audits, one of the most problematic variables has been 30-day mortality status (as opposed to in-hospital mortality). This is often a difficult endpoint to ascertain and may require more substantial investment of time and effort by participants, particularly for patients referred from outside their own institutions. Analysis of STS data suggests that approximately 90% of 30-day deaths occur in-hospital. Thus, if some patients recorded as being alive at 30 days have actually had their status ascertained only during the index hospitalization, the impact of this misclassification on the risk models should be negligible. This hypothesis was confirmed by comparing the odds ratios of all model variables for in-hospital versus 30-day mortality. Differences between the two were quite small, and these data are available on the web at www.sts.org/riskmodels. A new risk model for in-hospital mortality has been developed and placed on the same STS website. Furthermore, an aggressive program is in place to further enhance the accuracy of 30-day follow-up. In 2009, STS instituted a requirement that participants maintain documentation of the method by which they ascertained 30-day status, and that has become part of our routine audit. Linkage of the STS database with external death registries, such as the Social Security Death Master File, will

further support this capability. Finally, plans are being developed to expand the audit of certain key variables such as 30-day mortality to a significantly greater number of sites annually.

Conclusions

Risk-adjustment models account for the effect of patient comorbidities on outcomes. STS risk models are based upon clinical data from the STS NCD, one of the oldest and largest of all specialty registries. The value of such clinical registries is particularly evident in today's health care environment, where accreditation, regulatory compliance, reimbursement, and referrals are increasingly based upon objective data. Organizations such as the AQA and the National Quality Forum that evaluate and endorse performance measures strongly advocate the use of risk-adjusted outcomes measures.

STS believes that clinical data are superior to those derived from administrative sources. Furthermore, given the substantial implications of risk-adjusted outcomes, we believe that all risk models used for profiling quality of care should be transparent to permit comprehensive peer review and to foster credibility among stakeholders.

We present a detailed exposition of the development and validation of the 2008 STS CABG risk model. This describes not only the statistical considerations but, just as importantly, the many clinical and pragmatic judgments that are always necessary in risk model development.

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Appendix

Regression Coefficients and Variable Definitions for STS 2008 CABG Models

For each endpoint, the formula for calculating a patient's predicted risk of the endpoint has the form:

$$\text{Predicted Risk} = \frac{e^{(\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n)}}{1 + e^{(\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n)}}$$

where x_1, x_2, \dots, x_n denote patient preoperative risk factors (eg, quantitative variables such as age, and comorbidities coded as 1 = present, 0 = absent), and $\beta_0, \beta_1, \dots, \beta_n$ denote regression coefficients (numerical constants). Regression coefficients for each endpoint are presented in [Appendix Table 1](#). The variables x_1, x_2, \dots, x_n are the same for each endpoint and are defined in [Appendix Table 2](#). The regression coefficient for the time trend is not presented. Instead, the intercept has been adjusted to incorporate the time trend. This adjusted intercept reflects the baseline risk for a reference period of July to December 2006.

Appendix Table 1. Regression Coefficients

Variable	Mort	CVA	RF	Vent	DSWI	Reop	Comp	PLOS	SLOS
Intercept	-6.34090	-7.18174	-7.94605	-4.15175	-6.75378	-3.84861	-3.71671	-5.35975	2.84959
Atrial fibrillation	0.30830	0.18935	0.21351	0.17871	0.00000	0.23031	0.21565	0.35322	-0.49309
Age	-0.00259	0.00996	0.00678	0.00170	-0.00665	-0.00013	0.00247	0.00914	-0.01781
Age function 1	0.03325	0.04742	0.01496	0.00393	0.04270	0.01305	0.00515	0.02085	-0.00895
Age function 2	0.03140	-0.02582	0.02249	0.02366	-0.01895	0.01133	0.02441	0.01734	-0.02904
Age by reoperation function	-0.01714	-0.00098	-0.00291	-0.00459	0.00304	-0.00720	-0.00444	-0.00809	0.00449
Age by status function	-0.01366	-0.01363	-0.00022	-0.00106	-0.00352	-0.00435	0.00270	-0.00833	-0.00266
BSA function 1	-1.39342	-0.44041	-0.53672	-0.83950	0.65513	-0.83758	-0.75006	-0.89037	0.57952
BSA function 2	2.41303	0.06122	2.19879	2.15647	0.90025	1.16543	1.81770	2.15270	-1.83776
CHF but not NYHA IV	0.19229	0.00000	0.30971	0.26853	0.28272	0.14692	0.23695	0.35623	-0.32350
CHF and NYHA IV	0.32663	0.00000	0.30013	0.41599	0.36909	0.22846	0.39005	0.40757	-0.43827
Chronic lung disease mild	0.20273	0.00000	0.13488	0.30473	0.44371	0.10432	0.20878	0.29051	-0.23600
Chronic lung disease moderate	0.33843	0.00000	0.22530	0.50235	0.59021	0.18071	0.34720	0.50246	-0.39085
Chronic lung disease severe	0.85513	0.00000	0.50645	0.86175	0.87366	0.43034	0.68538	0.90211	-0.73862
Creatinine function 1	0.19353	0.02822	1.91934	-0.02712	-0.37465	0.01583	0.13361	-0.09060	0.00773
Creatinine function 2	0.82140	0.63174	0.50685	0.92120	1.09976	0.55107	0.99190	1.09571	-0.75781
Creatinine function 3	-0.70646	-0.52856	-2.04970	-0.68907	-0.68466	-0.39956	-0.81791	-0.70069	0.30449
CVD without prior CVA	0.13177	0.49807	0.10637	0.13792	0.00000	0.11403	0.15561	0.13271	-0.16385
CVD and prior CVA	0.26877	0.73600	0.16135	0.29946	0.00000	0.19208	0.28099	0.37248	-0.35706
Diabetes noninsulin dependent	0.01375	0.14992	0.27443	0.04283	0.31888	-0.01929	0.07453	0.13541	-0.13813
Diabetes insulin dependent	0.26312	0.17483	0.58581	0.19735	0.80627	0.12930	0.26525	0.46226	-0.44725
Dialysis	1.53777	0.54158	0.00000	1.01943	0.38312	0.63691	1.03466	0.93792	-1.30294
Ejection fraction function	0.01765	0.01274	0.00754	0.01669	0.01081	0.01063	0.01496	0.01542	-0.01756
Female	0.26801	0.27414	0.22704	0.28338	0.17792	-0.10270	0.16434	0.21488	-0.43658
Female by BSA function 1	0.82285	0.08974	0.96428	0.76954	1.11546	0.31901	0.66663	1.05623	-0.96846
Female by BSA function 2	0.05606	0.06490	-0.61086	-0.62558	0.17399	-0.02390	-0.25077	-0.35160	0.46088
Hypertension	0.00000	0.25718	0.22126	0.09930	0.00000	0.00000	0.11674	0.07200	-0.08155
IABP or inotropes	0.34193	0.00000	0.36023	0.94050	0.00000	0.31326	0.67253	0.47092	-0.51444
Immunosuppressive treatment	0.39159	0.00000	0.18881	0.10686	0.00000	0.27802	0.18030	0.24833	-0.22718
Insufficiency, aortic	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.19889
Insufficiency, mitral	0.26631	0.00000	0.00000	0.11169	0.00000	0.21170	0.18225	0.14174	-0.15962
Insufficiency, tricuspid	0.00000	0.00000	0.26729	0.24834	0.00000	0.00000	0.21893	0.00000	-0.24548
Left main disease	0.00000	0.00000	0.00000	0.06629	0.00000	0.00000	0.03570	0.00000	0.00000
MI 1 to 21 days	0.31810	0.27134	0.23962	0.28925	0.00000	0.00000	0.20524	0.19517	-0.12752
MI > 6 and < 24 hours	0.46614	0.46063	0.38917	0.46158	0.00000	0.00000	0.35859	0.27109	-0.22557
MI ≤ 6 hours	0.53242	0.39601	0.35421	0.44230	0.00000	0.00000	0.36337	0.26311	-0.19946
No. diseased vessel function	0.16120	0.30339	0.20729	0.17622	0.13869	0.06895	0.15075	0.13589	-0.21043
PCI ≤ 6 hours	0.31149	0.00000	0.25189	0.18695	0.00000	0.26256	0.26774	0.15633	-0.23860
Peripheral vascular disease	0.34951	0.27985	0.19308	0.20240	0.30529	0.21306	0.22277	0.27380	-0.19321
Race black	0.00000	0.34423	0.21696	0.31563	0.26572	0.19456	0.26634	0.35426	-0.37515
Race Hispanic	0.00000	0.11002	0.21645	0.14802	0.26330	0.04798	0.11289	0.08968	-0.16091
Race Asian	0.00000	0.28567	0.07579	0.28561	-0.00145	0.26855	0.20484	0.23064	-0.35049
Reop, 1 previous operation	1.13997	0.00000	0.41962	0.53987	0.00000	0.45372	0.47614	0.48534	-0.32375
Reop, ≥ 2 previous operations	1.43250	0.00000	0.45592	0.62211	0.00000	0.53695	0.61014	0.57945	-0.44745
Shock	0.82667	0.32434	0.50003	0.73290	0.00000	0.35800	0.74320	0.54575	-0.54475
Status urgent	0.14608	0.10671	0.11226	0.21738	0.18496	0.16500	0.16492	0.18202	-0.14608
Status emergent	1.04010	0.75216	0.51857	0.76090	0.62665	0.60549	0.56983	0.75083	-0.47745
Status salvage	2.07934	0.91950	0.76808	1.10085	0.73651	0.84873	1.29422	0.87072	-1.08265
Stenosis aortic	0.00000	0.00000	0.00000	0.16529	0.00000	0.00000	0.14706	0.13988	-0.14173
Unstable angina	0.11217	0.00000	0.10287	0.05060	0.00000	0.00000	0.00000	0.00000	0.00000

BSA = body surface area; CHF = congestive heart failure; Comp = composite adverse event (any); CVA = cerebrovascular accident (stroke); CVD = cerebrovascular disease; DSWI = deep sternal wound infection; IABP = intra-aortic balloon pump; MI = myocardial infarction; Mort = mortality; NYHA = New York Heart Association; PCI = percutaneous coronary intervention; PLOS = prolonged length of stay; Reop = reoperation; RF = renal failure; SLOS = short length of stay; Vent = prolonged ventilation.

Appendix Table 2. Definition of Variables Appearing in STS 2008 CABG Models

Variable	Definition
Intercept	= 1 for all patients
Atrial fibrillation	= 1 if patient has history of preoperative atrial fibrillation, = 0 otherwise
Age	= Patient age in years
Age function 1	= max (age-50, 0)
Age function 2	= max (age-60, 0)
Age by reop function	= Age function 1 if surgery is a reoperation, = 0 otherwise
Age by status function	= Age function 1 if status is emergent or salvage, = 0 otherwise
BSA function 1	= max (1.4, min [2.6, BSA]) - 1.8
BSA function 2	= (BSA function 1) ²
CHF but not NYHA IV	= 1 if patient has CHF and is not NYHA class IV, = 0 otherwise
CHF and NYHA IV	= 1 if patient has CHF and is NYHA class IV, = 0 otherwise
CLD mild	= 1 if patient has mild chronic lung disease, = 0 otherwise
CLD moderate	= 1 if patient has moderate chronic lung disease, = 0 otherwise
CLD severe	= 1 if patient has severe chronic lung disease, = 0 otherwise
Creatinine function 1	= max (0.5, min [creatinine, 5.0]) if patient is not on dialysis, = 0 otherwise
Creatinine function 2	= max ([creatinine function 1] - 1.0, 0)
Creatinine function 3	= max ([creatinine function 1] - 1.5, 0)
CVD without prior CVA	= 1 if patient has history of CVD and no prior CVA, = 0 otherwise
CVD and prior CVA	= 1 if patient has history of CVD and a prior CVA, = 0 otherwise
Diabetes, noninsulin	= 1 if patient has diabetes not treated with insulin, = 0 otherwise
Diabetes, insulin	= 1 if patient has diabetes treated with insulin, = 0 otherwise
Dialysis	= 1 if patient requires dialysis preoperatively, = 0 otherwise
Ejection fraction function	= max (50 - ejection fraction, 0)
Female	= 1 if patient is female, = 0 otherwise
Female by BSA function 1	= BSA function 1 if female, = 0 otherwise
Female by BSA function 2	= BSA function 2 if female, = 0 otherwise
Hypertension	= 1 if patient has hypertension, = 0 otherwise
IABP or inotropes	= 1 if patient requires IABP or inotropes preoperatively, = 0 otherwise
Immunosuppressive treatment	= 1 if patient given immunosuppressive therapy within 30 days, = 0 otherwise
Insufficiency, aortic	= 1 if patient has at least moderate aortic insufficiency, = 0 otherwise
Insufficiency, mitral	= 1 if patient has at least moderate mitral insufficiency, = 0 otherwise
Insufficiency, tricuspid	= 1 if patient has at least moderate tricuspid insufficiency, = 0 otherwise
Left main disease	= 1 if patient has left main disease, = 0 otherwise
MI 1 to 21 days	= 1 if history of MI 1 to 21 days prior to surgery, = 0 otherwise
MI > 6 and < 24 hours	= 1 if history of MI >6 and <24 hours prior to surgery, = 0 otherwise
MI ≤ 6 hours	= 1 if history of MI ≤ 6 hours prior to surgery, = 0 otherwise
No. diseased vessel function	= 2 if triple-vessel disease, = 1 if double-vessel disease, = 0 otherwise
PCI ≤ 6 hours	= 1 if patient had PCI ≤ 6 hours prior to surgery, = 0 otherwise
Peripheral vascular disease	= 1 if patient has peripheral vascular disease, = 0 otherwise
Race black	= 1 if patient is black, = 0 otherwise
Race Hispanic	= 1 if patient is nonblack Hispanic, = 0 otherwise
Race Asian	= 1 if patient is nonblack, non-Hispanic, and is Asian, = 0 otherwise
Reop, 1 previous operation	= 1 if patient has had exactly 1 previous CV surgery, = 0 otherwise
Reop, ≥ 2 previous operations	= 1 if patient has had 2 or more previous CV surgeries, = 0 otherwise
Shock	= 1 if patient was in shock at time of procedure, = 0 otherwise
Status urgent	= 1 if status is urgent, = 0 otherwise
Status emergent	= 1 if status is emergent (but not resuscitation), = 0 otherwise
Status salvage	= 1 if status is salvage (or emergent plus resuscitation), = 0 otherwise
Stenosis aortic	= 1 if patient has aortic stenosis, = 0 otherwise
Unstable angina	= 1 if patient has unstable angina, no MI within 7 days of surgery, = 0 otherwise

BSA = body surface area; CHF = congestive heart failure; CLD = chronic lung disease; CVA = cerebrovascular accident, or stroke; CVD = cerebrovascular disease; DSWI = deep sternal wound infection; EF = ejection fraction; IABP = intra-aortic balloon pump; MI = myocardial infarction; Mort = mortality; NYHA = New York Heart Association; PCI = percutaneous coronary intervention; PLOS = prolonged length of stay; Reop = reoperation; Comp = composite adverse event (any); RF = renal failure; SLOS = short length of stay; STS = The Society of Thoracic Surgeons; Vent = prolonged ventilation.

NATIONAL QUALITY FORUM

Measure Evaluation 4.1 December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the [evaluation criteria](#) are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all **yellow highlighted** areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all **pink** highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met

C = Completely (unquestionably demonstrated to meet the criterion)

P = Partially (demonstrated to partially meet the criterion)

M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)

N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)

NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) NQF Review #: 0217	NQF Project: Surgery Endorsement Maintenance 2010
MEASURE DESCRIPTIVE INFORMATION	
De.1 Measure Title: Surgery Patients with Recommended Venous Thromboembolism (VTE) Prophylaxis Ordered	
De.2 Brief description of measure: Percentage of surgery patients with recommended Venous Thromboembolism (VTE) Prophylaxis ordered during admission	
1.1-2 Type of Measure: Process	
De.3 If included in a composite or paired with another measure, please identify composite or paired measure Paired with #218	
De.4 National Priority Partners Priority Area: Safety	
De.5 IOM Quality Domain: Safety	
De.6 Consumer Care Need: Staying healthy	

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. <i>Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.</i> A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)? Yes A.2 Indicate if Proprietary Measure (as defined in measure steward agreement): A.3 Measure Steward Agreement: Government entity and in the public domain - no agreement necessary A.4 Measure Steward Agreement attached:	A Y <input type="checkbox"/> N <input type="checkbox"/>
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least	B Y <input type="checkbox"/>

every 3 years. Yes, information provided in contact section	N <input type="checkbox"/>
C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ► Purpose: Public reporting, Internal quality improvement Accountability, Payment incentive, Accreditation	C Y <input type="checkbox"/> N <input type="checkbox"/>
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1 Testing: Yes, fully developed and tested D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures? Yes	D Y <input type="checkbox"/> N <input type="checkbox"/>
(for NQF staff use) Have all conditions for consideration been met? Staff Notes to Steward (if submission returned):	Met Y <input type="checkbox"/> N <input type="checkbox"/>
Staff Notes to Reviewers (issues or questions regarding any criteria):	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria) 1a. High Impact	Eval Ratin g
(for NQF staff use) Specific NPP goal:	
1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers 1a.2 1a.3 Summary of Evidence of High Impact: There are over 30 million surgeries performed in the United States and prevention of perioperative venous thromboembolism is a major aspect of clinical care for the surgical patient. One study of patients discharged from 944 acute care hospitals in America found that postoperative VTE was the second most common medical complication and the third most common cause of excess mortality(1). Randomized clinical trials provide evidence that primary thromboprophylaxis reduces DVT and PE(2). PE is the most common preventable cause of patient death(3). Without prophylaxis, DVT occurs in almost 20% of major surgeries(4). Orthopedic patients experience a higher rate at 40- 60% (5) 1a.4 Citations for Evidence of High Impact: 1. Zhan C, Miller MR. Excess length of stay, charges, and mortality attributable to medical injuries during hospitalization. JAMA 2003; 290: 1868-1874. 2. Geerts WH, Pineo GJ, Heit JA, et al. Prevention of venous thromboembolism: the Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy. Chest 2004; 126:338S-400S. 3. Shojania KG, Duncan BW, McDonald KM, et al. Making health care safer: a critical analysis of patient safety practices; evidence report/technology assessment No. 43. AHRQ Publication No. 01-E058, Rockville, MD. Agency for Healthcare Research and Quality. Available at: www.ahrq.gov/clinic/ptsafety/. 4. Heit JA, Silverstein MD, Mohr DN, et al. Risk factors for deep vein thrombosis and pulmonary embolism: a population-based case-control study. Arch Intern Med 2000; 160: 809-815. 5. Geerts, WJ, Bergqvist D, Pineo GF, et al. Prevention of venous thromboembolism: American College of Chest Physicians evidence-based clinical practice guidelines (8th edition). Chest 2008; 133: 381-453.	1a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>

<p>1b. Opportunity for Improvement</p> <p>1b.1 Benefits (improvements in quality) envisioned by use of this measure: Routine administration of VTE prophylaxis reduces adverse patient outcomes while also decreasing costs in the surgical patient. Process measures for VTE prophylaxis will prompt facilities and clinicians to evaluate the systems in place to ensure appropriateness of administration, according to guidelines.</p> <p>1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers: Hospital reported data from the clinical data warehouse for the first quarter in 2010 shows that facilities are providing recommended VTE prophylaxis 94.2% of the time. A national sample of 19,497 Medicare patients undergoing surgery in US hospitals during the first quarter of 2005 received recommended VTE prophylaxis 71.9% of the time.</p> <p>1b.3 Citations for data on performance gap: From 3539 reporting hospitals nationally, the denominator was 139,743 with the numerator of 131,695.</p> <p>1b.4 Summary of Data on disparities by population group: No disparities are publicly reported for this measure at this time. Performance on most of the core measures is relatively high. For many of the core measures, there are slight disparities but the absolute differences in performance by race are relatively small. Hispanics had lower rates for surgical care.</p> <p>1b.5 Citations for data on Disparities: An attachment is provided with disparities information.</p>	<p>1b</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p>1c. Outcome or Evidence to Support Measure Focus</p> <p>1c.1 Relationship to Outcomes (For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population): Routine administration of VTE prophylaxis reduces adverse patient outcomes while also decreasing costs in the surgical patient. Without prophylaxis, the incidence of VTE is about 10-40% in general surgery patients and between 40 and 60% in orthopedic surgery patients.</p> <p>1c.2-3. Type of Evidence: Evidence-based guideline, Randomized controlled trial, Expert opinion, Systematic synthesis of research, Meta-analysis</p> <p>1c.4 Summary of Evidence (as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome): ACCP recommends that every hospital develop a formal strategy that addresses the prevention of VTE (Grade 1A). They recommend against the use of aspirin alone as thromboprophylaxis for any patient group (Grade 1A), and recommend that mechanical methods of thromboprophylaxis be used primarily for patients at high bleeding risk (Grade 1A) or possibly as an adjunct to anticoagulant thromboprophylaxis (Grade 2A).</p> <p>1c.5 Rating of strength/quality of evidence (also provide narrative description of the rating and by whom): Grade 1A to Grade 2C</p> <p>1c.6 Method for rating evidence: trong recommendation, high-quality evidence, Grade 1A; Strong recommendation, moderate-quality evidence, Grade 1B; Strong recommendation, low or very low-quality evidence, Grade 1C; Weak recommendation, high-quality evidence, Grade 2A; Weak recommendation, moderate-quality evidence, Grade 2B; Weak recommendation, low or very low-quality evidence, Grade 2C. *The guideline developers use the wording recommend for strong (Grade 1) recommendations and suggest for weak (Grade 2) recommendations.</p> <p>1c.7 Summary of Controversy/Contradictory Evidence: A guideline on the prevention of symptomatic PE developed by the American Academy of Orthopedic Surgeons recommended monoprophylaxis with aspirin for patients undergoing total hip or knee arthroplasty. That recommendation does not agree with the ACCP guidelines on VTE prevention.</p>	<p>1c</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

- 1c.8 Citations for Evidence (other than guidelines):**
1. Mismetti P, Laporte S, Darmon JY, et al. Meta-analysis of low molecular weight heparin in the prevention of venous thromboembolism in general surgery. *Br J Surg.* 2001;88:913-930.
 2. Freedman KB, Brookenthal KR, Fitzgerald RH, Jr, et al. A meta-analysis of thromboembolic prophylaxis following elective total hip arthroplasty. *J Bone Joint Surg.* 2000;82-A:929-938.
 3. Handoll HH, Farrar MJ, McBirnie J, et al. Heparin, low-molecular-weight heparin and physical methods for preventing deep vein thrombosis and pulmonary embolism following surgery for hip fractures. *Cochrane Database Syst Rev.* 2002(4):CD000305.
 4. Zurawska U, Parasuraman S, Goldhaber SZ. Prevention of pulmonary embolism in general surgery patients. *Circulation.* 2007;115:e302-e307.
 5. Agnelli G, Bergqvist D, Cohen AT, et al. Randomized clinical trial of postoperative fondaparinux versus perioperative dalteparin for prevention of venous thromboembolism in high-risk abdominal surgery. *Br J Surg.* 2005;92:1212-1220.
 6. McKenna GS, Karthikesalingam A, Walsh SR, et al. Prevention of venous thromboembolism: improving practice in surgical patients. *Int J Surg.* 2009;7:50-53.
 7. Iorio A, Agnelli G. Low-molecular-weight and unfractionated heparin for prevention of venous thromboembolism in neurosurgery: a meta-analysis. *Arch Intern Med.* 2000;160:2327-2332. PMID: 10927730.
 8. Goldhaber SZ, Dunn K, MacDougall RC. New onset of venous thromboembolism among hospitalized patients at Brigham and Women's Hospital is caused more often by prophylaxis failure than by withholding treatment. *Chest.* 2000;118:1680-1684. PMID: 11115458.
 9. O'Donnell M, Weitz JI. Thromboprophylaxis in surgical patients. *Can J Surg.* 2003; 46(2): 129-135. PMID: 12691354.
 10. Janku GV, Paiement GD, Green HD. Prevention of venous thromboembolism in orthopaedics in the United States. *Clin Ortho & Related Research.* 1996:313-321. PMID: 8998892.
 11. Koch A, Bouges S, Ziegler S, et al. Low molecular weight heparin and infractionated heparin in thrombosis prophylaxis after major surgical intervention: update of previous meta-analyses. *Br J Surg.* 1997;84:750-759. PMID: 9189079.
 12. Palmer AJ, Schramm W, Kirchhof B, et al. Low molecular weight heparin and unfractionated heparin for prevention of thrombo-embolism in general surgery: a meta-analysis of randomised clinical trials. *Haemostasis.* 1997;27:65-74. PMID: 9212354.
 13. Bratzler DW, Raskob GE, Murray CK, et al. Underuse of venous thromboembolism prophylaxis for general surgery patients: physician practices in the community hospital setting. *Arch Intern Med.* 1998;158:1909-1912. PMID: 9759687.
 14. Vanek VW. Meta-analysis of effectiveness of intermittent pneumatic compression devices with a comparison of thigh-high to knee-high sleeves. *American Surgeon.* 1998;64:1050-1058. PMID: 9798767.
 15. Heit JA, Silverstein MD, Mohr DN, Petterson TM, O'Fallon WM, Melton LJ, III. Risk factors for deep vein thrombosis and pulmonary embolism: a population-based case-control study. *Arch Intern Med* 2000;160:809-815.

1c.9 Quote the Specific guideline recommendation (including guideline number and/or page number):
 Every hospital should develop a strategy that addresses the prevention of VTE (Grade 1A). ACCP recommends against the use of aspirin alone as thromboprophylaxis for any patient group (Grade 1A), and recommends that mechanical methods of thromboprophylaxis be used primarily for patients at high bleeding risk (Grade 1A) or possibly as an adjunct to anticoagulant thromboprophylaxis (Grade 2A). For patients undergoing major general surgery, ACCP recommends thromboprophylaxis with a low-molecular-weight heparin (LMWH), low-dose unfractionated heparin (LDUH), or fondaparinux (each Grade 1A). Routine thromboprophylaxis for all patients undergoing major gynecologic surgery or major, open urologic procedures (Grade 1A for both groups), with LMWH, LDUH, fondaparinux, or intermittent pneumatic compression (IPC) is recommended. For patients undergoing elective hip or knee arthroplasty, one of the following three anticoagulant agents is recommended: LMWH, fondaparinux, or a vitamin K antagonist (VKA); international normalized ratio (INR) target, 2.5; range, 2.0 to 3.0 (each Grade 1A). For patients undergoing hip fracture surgery (HFS), the routine use of fondaparinux is recommended (Grade 1A), LMWH (Grade 1B), a VKA (target INR, 2.5; range, 2.0 to 3.0) [Grade 1B], or LDUH (Grade 1B). ACCP recommends that patients undergoing hip or knee arthroplasty or HFS receive thromboprophylaxis for a minimum of 10 days (Grade 1A); for hip arthroplasty and HFS, we recommend continuing thromboprophylaxis > 10 days and up to 35 days (Grade 1A).

1c.10 Clinical Practice Guideline Citation: Geerts, WJ, Bergqvist D, Pineo GF, et al. Prevention of venous thromboembolism: American College of Chest Physicians evidence-based clinical practice guidelines (8th

<p>edition). Chest 2008; 133: 381-453.</p> <p>1c.11 National Guideline Clearinghouse or other URL: http://www.guideline.gov/summary/summary.aspx?doc_id=12956&nbr=006665&string=vte+AND+prophylaxis</p> <p>1c.12 Rating of strength of recommendation (also provide narrative description of the rating and by whom): Grade 1 recommendations are strong and indicate that the benefits do or do not outweigh risks, burden, and costs. Grade 2 suggestions imply that individual patient values may lead to different choices.</p> <p>1c.13 Method for rating strength of recommendation (If different from USPSTF system, also describe rating and how it relates to USPSTF): The USPSTF assigns letter grades only. This guideline uses levels of evidence as well as grades of recommendations.</p> <p>1c.14 Rationale for using this guideline over others: This guideline is exhaustive in its coverage of studies supporting the recommendations with over 700 references used.</p>	
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Importance to Measure and Report</i>?</p>	<p>1</p>
<p>Steering Committee: Was the threshold criterion, <i>Importance to Measure and Report</i>, met? Rationale:</p>	<p>1 Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p style="text-align: center;">2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES</p>	
<p>Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)</p>	<p>Eval Rating</p>
<p style="text-align: center;">2a. MEASURE SPECIFICATIONS</p>	
<p>S.1 Do you have a web page where current detailed measure specifications can be obtained? S.2 If yes, provide web page URL:</p> <p>2a. Precisely Specified</p>	
<p>2a.1 Numerator Statement (Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome): Surgery patients with recommended VTE prophylaxis ordered during the admission</p> <p>2a.2 Numerator Time Window (The time period in which cases are eligible for inclusion in the numerator): Anytime from hospital arrival to 24 hours after Anesthesia End Time.</p> <p>2a.3 Numerator Details (All information required to collect/calculate the numerator, including all codes, logic, and definitions): Data Elements: Anesthesia Type VTE Prophylaxis</p>	
<p>2a.4 Denominator Statement (Brief, text description of the denominator - target population being measured): All selected surgery patients</p>	
<p>2a.5 Target population gender: Female, Male 2a.6 Target population age range: greater than or equal to 18 years of age</p> <p>2a.7 Denominator Time Window (The time period in which cases are eligible for inclusion in the denominator): Entire inpatient admission</p>	<p>2a-specs C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

2a.8 Denominator Details (All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions):

Data Elements:

- Admission Date
- Anesthesia End Date
- Anesthesia End Time
- Anesthesia Start Date
- Anesthesia Start Time
- Birthdate
- Clinical Trial
- Discharge Date
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- Laparoscope
- Perioperative Death
- Preadmission Warfarin
- Reason for Not Administering VTE Prophylaxis

2a.9 Denominator Exclusions (Brief text description of exclusions from the target population): Patients who are less than 18 years of age. Patients with procedures performed entirely by laparoscope. Patients whose total surgery time is less than or equal to 30 minutes
 Patients who stayed less than or equal to 24 hours postoperatively. Burn patients (refer to Specifications Manual, National Healthcare Quality Measures, Appendix A, Table 5.14 for ICD-9-CM codes). Patients who are on warfarin prior to admission. Patients with contraindications to both mechanical and pharmacological prophylaxis. Patients whose ICD-9-CM Principal Procedure occurred prior to the date of admission

2a.10 Denominator Exclusion Details (All information required to collect exclusions to the denominator, including all codes, logic, and definitions):

Data Elements:

- Laparoscope
- Perioperative Death
- Preadmission Warfarin
- Reason for Not Administering VTE Prophylaxis

2a.11 Stratification Details/Variables (All information required to stratify the measure including the stratification variables, all codes, logic, and definitions):

No stratification except by surgery type and those are:

- Intracranial neurosurgery, Appendix a, Table 5.17; General surgery, Appendix A, Table 5.19; Gynecologic Surgery, Appendix A, Table 5.20; Urologic Surgery, Appendix A, Table 5.21; Elective total hip, Appendix A, Table 5.22; Elective total knee, Appendix A, Table 5.23; Hip fracture surgery, Appendix A, Table 5.24

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method):

N/A

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion

2a.20 Interpretation of Score: Better quality = Higher score

2a.21 Calculation Algorithm (Describe the calculation of the measure as a flowchart or series of steps):

Numerator: Surgery patients with recommended Venous Thromboembolism (VTE) prophylaxis ordered anytime from hospital arrival to 24 hours after Anesthesia End Time.

Denominator: All selected surgery patients.

Variable Key: Patient Age, Length of Stay (LOS), Surgery Length, Surgery Days

1. Start processing. Run cases that are included in the Surgical Care Improvement Project (SCIP) Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this

measure.

2. Calculate Patient Age. The Patient Age, in years, is equal to the Admission Date minus the Birthdate. Use the month and day portion of admission date and birthdate to yield the most accurate age.

3. Check Patient Age

a. If Patient Age is less than 18 years, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

b. If Patient Age is greater than or equal to 18 years, continue processing and proceed to ICD-9-CM Principal Procedure Code.

4. Check ICD-9-CM Principal Procedure Code

a. If the ICD-9-CM Principal Procedure Code is not on Table 5.17, 5.19, 5.20, 5.21, 5.22, 5.23, or 5.24, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

b. If the ICD-9-CM Principal Procedure Code is on Table 5.17, 5.19, 5.20, 5.21, 5.22, 5.23, or 5.24, continue processing and proceed to ICD-9-CM Principal Diagnosis Code.

5. Check ICD-9-CM Principal Diagnosis Code

a. If the ICD-9-CM Principal Diagnosis Code is on Table 5.14, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

b. If the ICD-9-CM Principal Diagnosis Code is not on Table 5.14, continue processing and proceed to the LOS calculation.

6. Calculate LOS. LOS, in days, is equal to the Discharge Date minus the Admission Date

Specifications Manual for National Hospital Inpatient Quality Measures

Discharges 10-01-10 (4Q10) through 03-31-11 (1Q11) SCIP-VTE-1-12

7. Check LOS

a. If the LOS is less than or equal to 3 days, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Calculation. Stop processing.

b. If the LOS is greater than 3 days, continue processing and proceed to Laparoscope.

8. Check Laparoscope

a. If Laparoscope is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b. If Laparoscope equals 1 or 3, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c. If Laparoscope equals 2, continue processing and proceed to Clinical Trial.

9. Check Clinical Trial

a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c. If Clinical Trial equals No, continue processing and proceed to Preadmission Warfarin.

10. Check Preadmission Warfarin

a. If Preadmission Warfarin is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b. If Preadmission Warfarin equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c. If Preadmission Warfarin equals No, continue processing and proceed to Anesthesia Start Date.

11. Check Anesthesia Start Date

a. If the Anesthesia Start Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b. If the Anesthesia Start Date equals Unable To Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

c. If Anesthesia Start Date equals a Non Unable To Determine Value, continue processing and proceed to the Surgery Days calculation.

12. Calculate Surgery Days. Surgery Days, in days, is equal to the Anesthesia Start Date minus the Admission Date.

13. Check Surgery Days

a. If the Surgery Days is less than zero, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

b. If the Surgery Days is greater than or equal to zero, continue processing and proceed to Perioperative Death.

14. Check Perioperative Death

- a. If Perioperative Death is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Perioperative Death equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- c. If Perioperative Death equals No, continue processing and proceed to Anesthesia Start Time.

15. Check Anesthesia Start Time

- a. If the Anesthesia Start Time is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If the Anesthesia Start Time equals Unable to Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c. If the Anesthesia Start Time equals a Non Unable to Determine Value, continue processing and proceed to Anesthesia End Date.

16. Check Anesthesia End Date

- a. If the Anesthesia End Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If the Anesthesia End Date equals Unable to Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c. If the Anesthesia End Date equals a Non Unable to Determine Value, continue processing and proceed to Anesthesia End Time.

17. Check Anesthesia End Time

- a. If the Anesthesia End Time is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If the Anesthesia End Time equals Unable to Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c. If the Anesthesia End Time equals a Non Unable to Determine Value, continue processing and proceed to the Surgery Length calculation.

18. Calculate Surgery Length. Surgery Length, in minutes, is equal to the Anesthesia End Date and Anesthesia End Time minus the Anesthesia Start Date and Anesthesia Start Time.

19. Check Surgery Length

- a. If the Surgery Length is less than or equal to 60 minutes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- b. If the Surgery Length is greater than 60 minutes, continue processing and proceed to Reason for Not Administering VTE Prophylaxis.

20. Check Reason for Not Administering VTE Prophylaxis

- a. If Reason for Not Administering VTE Prophylaxis is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Reason for Not Administering VTE Prophylaxis equals 3, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- c. If Reason for Not Administering VTE Prophylaxis equals 1, 2, or 4, continue processing and proceed to VTE Prophylaxis.

21. Check VTE Prophylaxis

- a. If no values are populated in the VTE grid, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If VTE Prophylaxis equals A, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c. If the VTE grid is populated with any of values 1, 2, 3, 4, 5, 6, 7, or 8, continue processing and proceed to recheck the ICD-9-CM Principal Procedure Code. Note: If VTE Prophylaxis field is populated with an allowable value of 1, 2, 3, 4, 5, 6, 7, or 8 and the corresponding VTE Timely field is Missing, the entire case will be rejected by The Joint Commission and Centers for Medicare and Medicaid Services (CMS) warehouses.

22. Recheck ICD-9-CM Principal Procedure Code

- a. If the ICD-9-CM Principal Procedure Code is on Tables 5.17, 5.20, 5.21, or 5.23, continue processing. Proceed to step 27 and recheck ICD-9-CM Principal Procedure Code for Tables 5.17, 5.20, 5.21, 5.22, 5.23, and 5.24. Do not check steps 23 through 26 for ICD-9-CM Principal Procedure Code for Tables 5.17, 5.20, 5.21, 5.22, 5.23, and 5.24 as steps 23 through 26 check for codes on Tables 5.19, 5.22, and 5.24 only.
- b. If the ICD-9-CM Principal Procedure Code is on Tables 5.19, 5.22, or 5.24, continue processing and recheck ICD-9-CM Principal Procedure Code.

23. Recheck ICD-9-CM Principal Procedure Code only if the ICD-9-CM Principal Procedure Code is not on Tables

5.17, 5.20, 5.21 or 5.23

a.If the ICD-9-CM Principal Procedure Code is on Table 5.19, continue processing and recheck VTE Prophylaxis.

b.If the ICD-9-CM Principal Procedure Code is on Tables 5.22 or 5.24, continue processing. Proceed to step 27 and recheck ICD-9-CM Principal Procedure Code for Tables 5.17, 5.20, 5.21, 5.22, 5.23, and 5.24. Do not recheck step 24 VTE Prophylaxis, step 25 Reason for Not Administering VTE Prophylaxis or step 26 Anesthesia Type.

24.Recheck VTE Prophylaxis only if the ICD-9-CM Principal Procedure Code is on Table 5.19

a.If any VTE Prophylaxis equals 1, 2, or 5, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

b.If none of the VTE Prophylaxis equals 1, 2, or 5, continue processing and proceed to recheck Reason for Not Administering VTE Prophylaxis.

25.Recheck Reason for Not Administering VTE Prophylaxis

a.If Reason for Not Administering VTE Prophylaxis equals 1 or 4, continue processing and proceed to Anesthesia Type.

1.If Anesthesia Type is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

2.If Anesthesia Type equals 1 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

3.If Anesthesia Type equals 2 or 3, continue processing and recheck VTE Prophylaxis.

b.If Reason for Not Administering VTE Prophylaxis equals 2, continue processing and recheck VTE Prophylaxis.

26.Recheck VTE Prophylaxis

a.If any VTE Prophylaxis equals 3 or 4, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

b.If none of the VTE Prophylaxis equals 3 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

27.Recheck ICD-9-CM Principal Procedure Code for Tables 5.17, 5.20, 5.21, 5.22, 5.23, and 5.24 only if ICD-9-CM Principal Procedure Code was not on Table 5.19

a.If the ICD-9-CM Principal Procedure Code is on Table 5.17, continue processing and recheck VTE Prophylaxis.

1.If any VTE Prophylaxis equals 1, 2, or 3, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

2.If none of the VTE Prophylaxis equals 1, 2, or 3, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b.If the ICD-9-CM Principal Procedure Code is on Tables 5.20, 5.21, 5.22, 5.23, or 5.24, continue processing and recheck ICD-9-CM Principal Procedure Code.

28.Recheck ICD-9-CM Principal Procedure Code for Tables 5.20, 5.21, 5.22, 5.23, and 5.24 only if the ICD-9-CM Principal Procedure Code was not on Tables 5.17 or 5.19

a.If the ICD-9-CM Principal Procedure Code is on Table 5.20, continue processing and recheck VTE Prophylaxis.

1.If any VTE Prophylaxis equals 1, 2, 3 or 5, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

2.If none of the VTE Prophylaxis equals 1, 2, 3, or 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b.If the ICD-9-CM Principal Procedure Code is on Tables 5.21, 5.22, 5.23, or 5.24, continue processing and recheck ICD-9-CM Principal Procedure Code.

29.Recheck ICD-9-CM Principal Procedure Code for Tables 5.21, 5.22, 5.23, and 5.24 only if the ICD-9-CM Principal Procedure Code is not on Tables 5.17, 5.19 or 5.20

a.If the ICD-9-CM Principal Procedure Code is on Table 5.21, continue processing and recheck VTE Prophylaxis.

1.If any VTE Prophylaxis equals 1, 2, 3, 4, or 5, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

2.If none of the VTE Prophylaxis equals 1, 2, 3, 4, or 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b. If the ICD-9-CM Principal Procedure Code is on Tables 5.22, 5.23, or 5.24, continue processing and recheck ICD-9-CM Principal Procedure Code.

30.Recheck ICD-9-CM Principal Procedure Code for Tables 5.22, 5.23, and 5.24 only if the ICD-9-CM Principal Procedure Code is not on Tables 5.17, 5.19, 5.20 or 5.21

- a.If the ICD-9-CM Principal Procedure Code is on Table 5.22, continue processing and recheck VTE Prophylaxis.
- b.If the ICD-9-CM Principal Procedure Code is on Tables 5.23 or 5.24, continue processing. Proceed to step 35 and recheck ICD-9-CM Principal Procedure Code for Tables 5.23 and 5.24. Do not recheck step 31, 32 and 34 VTE Prophylaxis or step 33 Reason for Not Administering VTE Prophylaxis.
- 31.Recheck VTE Prophylaxis only if the ICD-9-CM Principal Procedure Code is on Table 5.22
- a.If any VTE Prophylaxis equals 2, 5, 6, or 8, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- b.If none of the VTE Prophylaxis equals 2, 5, 6, or 8, continue processing and proceed to recheck VTE Prophylaxis.
- 32.Recheck VTE Prophylaxis
- a.If any VTE Prophylaxis equals 1, continue processing and check ICD-9-CM Principal or Other Diagnosis Codes.
- 1.If any of the ICD-9-CM Principal or Other Diagnosis Codes is on Table 5.13, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- 2.If none of the ICD-9-CM Principal or Other Diagnosis Codes is on Table 5.13, continue processing and recheck Reason for Not Administering VTE Prophylaxis.
- b.If none of the VTE Prophylaxis equals 1, continue processing and proceed to recheck Reason for Not Administering VTE Prophylaxis.
- 33.Recheck Reason for Not Administering VTE Prophylaxis
- a.If Reason for Not Administering VTE Prophylaxis equals 1 or 4, continue processing and recheck Anesthesia Type.
- 1.If Anesthesia Type is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- 2.If Anesthesia Type equals 1 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- 3.If Anesthesia Type equals 2 or 3, continue processing and recheck VTE Prophylaxis.
- b.If Reason for Not Administering VTE Prophylaxis equals 2, continue processing and proceed to recheck VTE Prophylaxis.
- 34.Recheck VTE Prophylaxis
- a.If any VTE Prophylaxis equals 3 or 7, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- b.If none of the VTE Prophylaxis equals 3 or 7, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- 35.Recheck ICD-9-CM Principal Procedure Code for Tables 5.23 and 5.24 only if the ICD-9-CM Principal Procedure Code was not on Tables 5.17, 5.19, 5.20, 5.21, or 5.22
- a.If the ICD-9-CM Principal Procedure Code is on Table 5.23, continue processing and recheck VTE Prophylaxis.
- 1.If Any VTE Prophylaxis is equal to 2, 3, 5, 6, 7, or 8, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- 2.If None of the VTE Prophylaxis is equal to 2, 3, 5, 6, 7, or 8, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- b.If the ICD-9-CM Principal Procedure Code is on Table 5.24, continue processing and recheck VTE Prophylaxis.
- 36.Recheck VTE Prophylaxis
- a.If any VTE Prophylaxis equals 1, 2, 5, 6, or 8, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- b.If none of the VTE Prophylaxis equals 1, 2, 5, 6, or 8, continue processing and proceed to recheck Reason for Not Administering VTE Prophylaxis.
- 37.Recheck Reason for Not Administering VTE Prophylaxis
- a.If Reason for Not Administering VTE Prophylaxis equals 1 or 4, continue processing and recheck Anesthesia Type.
- 1.If Anesthesia Type is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- 2.If Anesthesia Type equals 1 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- 3.If Anesthesia Type equals 2 or 3, continue processing and recheck VTE Prophylaxis.
- b.If Reason for Not Administering VTE Prophylaxis equals 2, continue processing and proceed to recheck VTE

Prophylaxis.
 38.Recheck VTE Prophylaxis
 a.If any VTE Prophylaxis equals 3, 4, or 7, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 b.If none of the VTE Prophylaxis equals 3, 4, or 7, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

2a.22 Describe the method for discriminating performance (e.g., significance testing):
 Benchmarks are established using the ABC methodology, based on the actual performance of the top facilities. ABC benchmarks identify superior performance and encourage poorer performers to improve. It is data-driven, peer-group performance feedback used to positively affect outcomes.

2a.23 Sampling (Survey) Methodology *If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):*
 The SCIP Topic Population (common to all SCIP measures) is defined as patients admitted to the hospital for inpatient acute care with an ICD-9-CM Principal Procedure Code for SCIP as defined in Appendix A, Table 5.10 and a Length of Stay (Discharge Date - Admission Date) <= 120 days. There are eight distinct strata or sub-populations within the SCIP Topic Population, each identified by a specific group of procedure codes. The patients in each stratum are counted in the Initial Patient Population of multiple measures.

2a.24 Data Source *(Check the source(s) for which the measure is specified and tested)*
 Paper medical record/flow-sheet, Electronic Health/Medical Record

2a.25 Data source/data collection instrument *(Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.):*
 Vendor tools (electronic) or CART. CART is available for download free at <http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138900279093>

2a.26-28 Data source/data collection instrument reference web page URL or attachment: URL
<http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138900279093>

2a.29-31 Data dictionary/code table web page URL or attachment: URL
<http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228695698425>

2a.32-35 Level of Measurement/Analysis *(Check the level(s) for which the measure is specified and tested)*
 Facility/Agency, Population: national, Program: QIO, Can be measured at all levels

2a.36-37 Care Settings *(Check the setting(s) for which the measure is specified and tested)*
 Hospital

2a.38-41 Clinical Services *(Healthcare services being measured, check all that apply)*

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size):* Measure has been used for reporting program since 2007.

2b.2 Analytic Method *(type of reliability & rationale, method for testing):*
 Feedback from the hospital abstractors and the independent validation team is collected and incorporated. Reports on mismatches between national abstractors and the independent abstraction/validation contractor are reviewed quarterly. Revisions to data element are made accordingly.

2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted):*

2b
 C
 P
 M
 N

<p>NA</p>	
<p>2c. Validity testing</p> <p>2c.1 Data/sample (<i>description of data/sample and size</i>): The measure is reviewed by a Technical Expert panel quarterly for validity. Specifications (including codes and data elements) are modified every six months according to feedback provided by clinicians and hospital staff collecting the data for the measure. National performance of the measure is monitored by the measure steward with quarterly benchmarks of hospital submitte data developed for distribution by QIOs.</p> <p>2c.2 Analytic Method (<i>type of validity & rationale, method for testing</i>): The TEP determines if the measure is still providing the information that it is intended to capture.</p> <p>2c.3 Testing Results (<i>statistical results, assessment of adequacy in the context of norms for the test conducted</i>): NA</p>	<p>2c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2d. Exclusions Justified</p> <p>2d.1 Summary of Evidence supporting exclusion(s): The exclusions to this measure were suggested by the TEP or are routine exclusions used by the SCIP measure set.</p> <p>2d.2 Citations for Evidence: NA</p> <p>2d.3 Data/sample (<i>description of data/sample and size</i>): NA</p> <p>2d.4 Analytic Method (<i>type analysis & rationale</i>): NA</p> <p>2d.5 Testing Results (<i>e.g., frequency, variability, sensitivity analyses</i>): NA</p>	<p>2d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> <input type="checkbox"/></p>
<p>2e. Risk Adjustment for Outcomes/ Resource Use Measures</p> <p>2e.1 Data/sample (<i>description of data/sample and size</i>): No risk adjustment performed.</p> <p>2e.2 Analytic Method (<i>type of risk adjustment, analysis, & rationale</i>): NA</p> <p>2e.3 Testing Results (<i>risk model performance metrics</i>): NA</p> <p>2e.4 If outcome or resource use measure is not risk adjusted, provide rationale: NA</p>	<p>2e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> <input type="checkbox"/></p>
<p>2f. Identification of Meaningful Differences in Performance</p> <p>2f.1 Data/sample from Testing or Current Use (<i>description of data/sample and size</i>): Analysts review quarterly benchmarks and trends to identify differences in performance scores and investigate the possible causes. If measure specification (algorithms, data elements) are causing variation, they are reviewed for possible updates or revision.</p> <p>2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance (<i>type of analysis & rationale</i>): Analysts review quarterly benchmarks and trends to identify differences in performance scores and investigate the possible causes. If measure specifications (algorithms, data elements) are causing variation, they are reviewed for possible updates or revision.</p> <p>2f.3 Provide Measure Scores from Testing or Current Use (<i>description of scores, e.g., distribution by</i></p>	<p>2f C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance): Q109:92.8 Q209:93.1 Q309:93.4 Q409:93.4 Q110: 94.2</p>	
<p>2g. Comparability of Multiple Data Sources/Methods</p> <p>2g.1 Data/sample (description of data/sample and size): At this time, the data source is the inpatient medical record only.</p> <p>2g.2 Analytic Method (type of analysis & rationale): NA</p> <p>2g.3 Testing Results (e.g., correlation statistics, comparison of rankings): NA</p>	<p>2g C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2h. Disparities in Care</p> <p>2h.1 If measure is stratified, provide stratified results (scores by stratified categories/cohorts): Measure is not stratified, but a disparities report is attached to submission.</p> <p>2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans: See attached.</p>	<p>2h C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Scientific Acceptability of Measure Properties?</p>	<p>2</p>
<p>Steering Committee: Overall, to what extent was the criterion, Scientific Acceptability of Measure Properties, met? Rationale:</p>	<p>2 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>3. USABILITY</p>	
<p>Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>3a. Meaningful, Understandable, and Useful Information</p> <p>3a.1 Current Use: In use</p> <p>3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large) (If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). <u>If not publicly reported</u>, state the plans to achieve public reporting within 3 years): Measure is used in Hospital Quality Reporting Program (formerly RHQDAPU)</p> <p>3a.3 If used in other programs/initiatives (If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). <u>If not used for QI</u>, state the plans to achieve use for QI within 3 years): Measure is also used for accreditation by the Joint Commission.</p> <p>Testing of Interpretability (Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement)</p> <p>3a.4 Data/sample (description of data/sample and size): Measure is reported on a public website, Hospital Compare. Feedback on this website is collected through another contractor.</p> <p>3a.5 Methods (e.g., focus group, survey, QI project):</p>	<p>3a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

Measure is reported on a public website, Hospital Compare. Feedback on this website is collected through another contractor.	
3a.6 Results (<i>qualitative and/or quantitative results and conclusions</i>): Measure is reported on a public website, Hospital Compare. Feedback on this website is collected through another contractor.	
3b/3c. Relation to other NQF-endorsed measures	
3b.1 NQF # and Title of similar or related measures: #218	
(for NQF staff use) Notes on similar/related <u>endorsed</u> or submitted measures:	
3b. Harmonization If this measure is related to measure(s) already <u>endorsed by NQF</u> (e.g., same topic, but different target population/setting/data source <u>or</u> different topic but same target population): 3b.2 Are the measure specifications harmonized? If not, why? There is a Joint Commission measure that covers hospitalized patients, but their measure excludes those undergoing surgery. There is no competition.	3b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> <input type="checkbox"/>
3c. Distinctive or Additive Value 3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures: Not applicable. 5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality: Not applicable.	3c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> <input type="checkbox"/>
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Usability</i>?	3
Steering Committee: Overall, to what extent was the criterion, <i>Usability</i>, met? Rationale:	3 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Ratin g
4a. Data Generated as a Byproduct of Care Processes 4a.1-2 How are the data elements that are needed to compute measure scores generated? Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)	4a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
4b. Electronic Sources 4b.1 Are all the data elements available electronically? (<i>elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims</i>) No 4b.2 If not, specify the near-term path to achieve electronic capture by most providers. Measure will be retooled for EHR collection in the near future.	4b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
4c. Exclusions 4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?	4c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/>

No	N <input type="checkbox"/> NA <input type="checkbox"/>
4c.2 If yes, provide justification.	<input type="checkbox"/>
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences	4d
4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results. No unintended consequences have been identified.	C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
4e. Data Collection Strategy/Implementation	
4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues: There have been no implementation issues identified.	
4e.2 Costs to implement the measure (costs of data collection, fees associated with proprietary measures): No information has been collected related to costs associated with implementation of this measure.	
4e.3 Evidence for costs: Data abstraction is usually performed by nurses in the Quality Improvement department of inpatient facilities.	4e
4e.4 Business case documentation: There have been no additions to the business case to support this measure since its implementation.	C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Feasibility?	4
Steering Committee: Overall, to what extent was the criterion, Feasibility, met? Rationale:	4 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
RECOMMENDATION	
(for NQF staff use) Check if measure is untested and only eligible for time-limited endorsement.	Time-limited <input type="checkbox"/>
Steering Committee: Do you recommend for endorsement? Comments:	Y <input type="checkbox"/> N <input type="checkbox"/> A <input type="checkbox"/>
CONTACT INFORMATION	
Co.1 Measure Steward (Intellectual Property Owner)	
Co.1 <u>Organization</u> Centers for Medicare & Medicaid Services, 7500 Security Boulevard , Mail Stop S3-01-02, Baltimore, Maryland, 21244-1850	
Co.2 <u>Point of Contact</u> Kristie, Baus, RN, MS, kristie.baus@cms.hhs.gov, 410-786-8161-	
Measure Developer If different from Measure Steward	
Co.3 <u>Organization</u> Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Mail Stop S3-01-02, Baltimore, Maryland, 21244-1850	

<p>Co.4 Point of Contact Kristie, Baus, RN, MS, kristie.baus@cms.hhs.gov, 410-786-8161-</p>
<p>Co.5 Submitter If different from Measure Steward POC Wanda, Johnson, RN, wjohnson@ofmq.com, 405-302-3278-, CMS</p>
<p>Co.6 Additional organizations that sponsored/participated in measure development Oklahoma Foundation for Medical Quality under contract to CMS.</p>
<p>ADDITIONAL INFORMATION</p>
<p>Workgroup/Expert Panel involved in measure development Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development. Surgical Care Improvement Project VTE TEP. Names available from OFMQ. Leading guideline author Bill Geerts MD was instrumental in the development of these two VTE measures. He has been active on the TEP since its inception.</p>
<p>Ad.2 If adapted, provide name of original measure: NA Ad.3-5 If adapted, provide original specifications URL or attachment</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance Ad.6 Year the measure was first released: 2006 Ad.7 Month and Year of most recent revision: 10, 2010 Ad.8 What is your frequency for review/update of this measure? every six months Ad.9 When is the next scheduled review/update for this measure? 04, 2011</p>
<p>Ad.10 Copyright statement/disclaimers:</p>
<p>Ad.11 -13 Additional Information web page URL or attachment: Attachment Disparities Table_01_2009-634274316384644430.xls</p>
<p>Date of Submission (MM/DD/YY): 12/08/2010</p>

Appendix A
ICD-9-CM Code Tables

Last Updated: Version 3.2

Index		
Number	Name	Page
Table 1.1	Acute Myocardial Infarction (AMI)	Appendix A-3
Table 1.2	Percutaneous Coronary Intervention (PCI)	Appendix A-3
Table 2.1	Heart Failure (HF)	Appendix A-3
Table 2.2	Left Ventricular Assistive Device (LVAD) and Heart Transplant	Appendix A-4
Table 3.1	Pneumonia (PN)	Appendix A-4
Table 3.2	Septicemia	Appendix A-5
Table 3.3	Respiratory Failure	Appendix A-5
Table 3.4	Cystic Fibrosis	Appendix A-5
Table 4.01	Reserved for Future Use	N/A
Table 4.02	Reserved for Future Use	N/A
Table 4.03	Reserved for Future Use	N/A
Table 4.04	Reserved for Future Use	N/A
Table 4.05	Reserved for Future Use	N/A
Table 4.06	Reserved for Future Use	N/A
Table 4.07	Cesarean Section	Appendix A-6
Table 4.08	Reserved for Future Use	N/A
Table 4.09	Reserved for Future Use	N/A
Table 4.10	Reserved for Future Use	N/A
Table 4.10.1	Reserved for Future Use	N/A
Table 4.11	Reserved for Future Use	N/A
Table 4.12	Reserved for Future Use	N/A
Table 4.13	Reserved for Future Use	N/A
Table 5.01	Coronary Artery Bypass Graft (CABG)	Appendix A-7
Table 5.02	Other Cardiac Surgery	Appendix A-7
Table 5.03	Colon Surgery	Appendix A-8
Table 5.04	Hip Arthroplasty	Appendix A-9
Table 5.05	Knee Arthroplasty	Appendix A-9
Table 5.06	Abdominal Hysterectomy	Appendix A-9
Table 5.07	Vaginal Hysterectomy	Appendix A-9
Table 5.08	Vascular Surgery	Appendix A-10
Table 5.09	Infection	Appendix A-10
Table 5.10	Major Surgery	Appendix A-25
Table 5.11	Cardiac Surgery	Appendix A-34
Table 5.12	Reserved for Future Use	N/A
Table 5.13	Hip Fractures	Appendix A-36
Table 5.14	Burns	Appendix A-37
Table 5.15	Transplant	Appendix A-45
Table 5.16	Urological/Perineal	Appendix A-45
Table 5.17	Intracranial Neurosurgery	Appendix A-56

Index		
Number	Name	Page
Table 5.18	Reserved for Future Use	N/A
Table 5.19	General Surgery	Appendix A-57
Table 5.20	Gynecological Surgery	Appendix A-62
Table 5.21	Urological Surgery	Appendix A-62
Table 5.22	Elective Hip Replacement	Appendix A-63
Table 5.23	Elective Total Knee Replacement	Appendix A-64
Table 5.24	Hip Fracture Surgery	Appendix A-64
Table 5.25	Other Major Surgery for Sampling	Appendix A-64
Table 6.1	Asthma	Appendix A-70
Table 7.01	Mental Disorders	Appendix A-71
Table 7.02	Obstetrics	Appendix A-80
Table 7.03	Venous Thromboembolism (VTE)	Appendix A-99
Table 7.04	Obstetrics - VTE	Appendix A-99
Table 8.1	Ischemic Stroke	Appendix A-100
Table 8.2	Hemorrhagic Stroke	Appendix A-100
Table 12.1	Diabetes	Appendix A-100
Table 12.2	End-Stage Renal Disease	Appendix A-102
Table 12.3	Pregnancy	Appendix A-102
Table 12.4	Asthma	Appendix A-112
Table 12.5	Chronic Obstructive Pulmonary Disease (COPD)	Appendix A-112
Table 12.6	Nephrotic Syndrome	Appendix A-113
Table 12.7	Asplenia	Appendix A-113
Table 12.8	Human Immunodeficiency Virus (HIV)	Appendix A-113
Table 12.9	Influenza	Appendix A-113

Code	Shortened Description
410.00	AMI ANTEROLATERAL, UNSPEC
410.01	AMI ANTEROLATERAL, INIT
410.10	AMI ANTERIOR WALL, UNSPEC
410.11	AMI ANTERIOR WALL, INIT
410.20	AMI INFEROLATERAL, UNSPEC
410.21	AMI INFEROLATERAL, INIT
410.30	AMI INFEROPOST, UNSPEC
410.31	AMI INFEROPOST, INITIAL
410.40	AMI INFERIOR WALL, UNSPEC
410.41	AMI INFERIOR WALL, INIT
410.50	AMI LATERAL NEC, UNSPEC
410.51	AMI LATERAL NEC, INITIAL
410.60	TRUE POST INFARCT, UNSPEC
410.61	TRUE POST INFARCT, INIT
410.70	SUBENDO INFARCT, UNSPEC
410.71	SUBENDO INFARCT, INITIAL
410.80	AMI NEC, UNSPECIFIED
410.81	AMI NEC, INITIAL
410.90	AMI NOS, UNSPECIFIED
410.91	AMI NOS, INITIAL

Last Updated: Version 3.2

Code	Shortened Description
00.66	PTCA OR CORONARY ATHER

Last Updated: Version 3.2

Code	Shortened Description
402.01	MAL HYPERT HRT DIS W HF
402.11	BENIGN HYP HT DIS W HF
402.91	HYP HT DIS NOS W HT FAIL
404.01	MAL HYP HT/KD I-IV W HF
404.03	MAL HYP HT/KD STG V W HF
404.11	BEN HYP HT/KD I-IV W HF
404.13	BEN HYP HT/KD STG V W HF
404.91	HYP HT/KD NOS I-IV W HF
404.93	HYP HT/KD NOS ST V W HF
428.0	CHF NOS
428.1	LEFT HEART FAILURE

Table 2.1 Heart Failure (HF)	
Code	Shortened Description
428.20	SYSTOLIC HRT FAILURE NOS
428.21	AC SYSTOLIC HRT FAILURE
428.22	CHR SYSTOLIC HRT FAILURE
428.23	AC ON CHR SYST HRT FAIL
428.30	DIASTOLC HRT FAILURE NOS
428.31	AC DIASTOLIC HRT FAILURE
428.32	CHR DIASTOLIC HRT FAIL
428.33	AC ON CHR DIAST HRT FAIL
428.40	SYST/DIAST HRT FAIL NOS
428.41	AC SYST/DIASTOL HRT FAIL
428.42	CHR SYST/DIASTL HRT FAIL
428.43	AC/CHR SYST/DIA HRT FAIL
428.9	HEART FAILURE NOS

Last Updated: Version 3.2

Table 2.2 Left Ventricular Assistive Device (LVAD) and Heart Transplant	
Code	Shortened Description
33.6	COMB HEART/LUNG TRANSPLA
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.65	IMP VENT EXT HRT AST SYS
37.66	IMPLANTABLE HRT ASSIST
37.68	PERCUTAN HRT ASSIST SYST

Last Updated: Version 3.2

Table 3.1 Pneumonia (PN)	
Code	Shortened Description
481	PNEUMOCOCCAL PNEUMONIA
482.0	K. PNEUMONIAE PNEUMONIA
482.1	PSEUDOMONAL PNEUMONIA
482.2	H.INFLUENZAE PNEUMONIA
482.30	STREPTOCOCCAL PNEUMN NOS
482.31	PNEUMONIA STRPTOCOCCUS A
482.32	PNEUMONIA STRPTOCOCCUS B
482.39	PNEUMONIA OTH STREP
482.40	STAPHYLOCOCCAL PNEU NOS
482.41	METH SUS PNEUM D/T STAPH
482.42	METH RES PNEU D/T STAPH

Table 3.1 Pneumonia (PN)	
Code	Shortened Description
482.49	STAPH PNEUMONIA NEC
482.82	PNEUMONIA E COLI
482.83	PNEUMO OTH GRM-NEG BACT
482.84	LEGIONNAIRES' DISEASE
482.89	PNEUMONIA OTH SPCF BACT
482.9	BACTERIAL PNEUMONIA NOS
483.0	PNEU MYCPLSM PNEUMONIAE
483.1	PNEUMONIA D/T CHLAMYDIA
483.8	PNEUMON OTH SPEC ORGNSM
485	BRONCHOPNEUMONIA ORG NOS
486	PNEUMONIA, ORGANISM NOS

Last Updated: Version 3.2

Table 3.2 Septicemia	
Code	Shortened Description
038.0	STREPTOCOCCAL SEPTICEMIA
038.10	STAPHYLCOCC SEPTICEM NOS
038.11	METH SUSC STAPH AUR SEPT
038.12	MRSA SEPTICEMIA
038.19	STAPHYLCOCC SEPTICEM NEC
038.2	PNEUMOCOCCAL SEPTICEMIA
038.3	ANAEROBIC SEPTICEMIA
038.40	GRAM-NEG SEPTICEMIA NOS
038.41	H. INFLUENAE SEPTICEMIA
038.42	E COLI SEPTICEMIA
038.43	PSEUDOMONAS SEPTICEMIA
038.44	SERRATIA SEPTICEMIA
038.49	GRAM-NEG SEPTICEMIA NEC
038.8	SEPTICEMIA NEC
038.9	SEPTICEMIA NOS

Last Updated: Version 3.2

Table 3.3 Respiratory Failure	
Code	Shortened Description
518.81	ACUTE RESPIRATRY FAILURE
518.84	ACUTE & CHRONC RESP FAIL

Last Updated: Version 3.2

Table 3.4 Cystic Fibrosis	
Code	Shortened Description
277.00	CYSTIC FIBROSIS W/O ILEUS

Table 3.4 Cystic Fibrosis	
Code	Shortened Description
277.01	CYSTIC FIBROSIS W ILEUS
277.02	CYSTIC FIBROSIS W PUL MAN
277.03	CYSTIC FIBROSIS W GI MAN
277.09	CYSTIC FIBROSIS NEC

Table 4.01 – Reserved for Future Use

Table 4.02 – Reserved for Future Use

Table 4.03 – Reserved for Future Use

Table 4.04 – Reserved for Future Use

Table 4.05 – Reserved for Future Use

Table 4.06 – Reserved for Future use

Last Updated: Version 3.2

Table 4.07 Cesarean Section	
Code	Shortened Description
74.0	CLASSICAL C-SECTION
74.1	LOW CERVICAL C-SECTION
74.2	EXTRAPERITONEAL C-SECT
74.4	CESAREAN SECTION NEC
74.99	CESAREAN SECTION NOS

Table 4.08 – Reserved for Future Use

Table 4.09 – Reserved for Future Use

Table 4.10 – Reserved for Future Use

Table 4.10.1 – Reserved for Future Use

Table 4.11 – Reserved for Future Use

Table 4.12 – Reserved for Future Use

Table 4.13 – Reserved for Future Use

Code	Shortened Description
36.10	AORTOCORONARY BYPASS NOS
36.11	AORTOCOR BYPAS-1 COR ART
36.12	AORTOCOR BYPAS-2 COR ART
36.13	AORTOCOR BYPAS-3 COR ART
36.14	AORTCOR BYPAS-4+ COR ART
36.15	1 INT MAM-COR ART BYPASS
36.16	2 INT MAM-COR ART BYPASS
36.17	ABD-CORON ARTERY BYPASS
36.19	HRT REVAS BYPS ANAS NEC

Code	Shortened Description
35.10	OPEN VALVULOPLASTY NOS
35.11	OPN AORTIC VALVULOPLASTY
35.12	OPN MITRAL VALVULOPLASTY
35.13	OPN PULMON VALVULOPLASTY
35.14	OPN TRICUS VALVULOPLASTY
35.20	REPLACE HEART VALVE NOS
35.21	REPLACE AORT VALV-TISSUE
35.22	REPLACE AORTIC VALVE NEC
35.23	REPLACE MITR VALV-TISSUE
35.24	REPLACE MITRAL VALVE NEC
35.25	REPLACE PULM VALV-TISSUE
35.26	REPLACE PULMON VALVE NEC
35.27	REPLACE TRIC VALV-TISSUE
35.28	REPLACE TRICUSP VALV NEC
35.31	PAPILLARY MUSCLE OPS
35.32	CHORDAE TENDINEAE OPS
35.33	ANNULOPLASTY
35.34	INFUNDIBULECTOMY
35.35	TRABECUL CARNEAE CORD OP
35.39	TISS ADJ TO VALV OPS NEC
35.42	CREATE SEPTAL DEFECT
35.50	PROSTH REP HRT SEPTA NOS
35.51	PROS REP ATRIAL DEF-OPN
35.53	PROS REP VENTRIC DEF-OPN
35.54	PROS REP ENDOCAR CUSHION
35.60	GRFT REPAIR HRT SEPT NOS
35.61	GRAFT REPAIR ATRIAL DEF
35.62	GRAFT REPAIR VENTRIC DEF
35.63	GRFT REP ENDOCAR CUSHION

Table 5.02 Other Cardiac Surgery	
Code	Shortened Description
35.70	HEART SEPTA REPAIR NOS
35.72	VENTR SEPTA DEF REP NEC
35.73	ENDOCAR CUSHION REP NEC
35.81	TOT REPAIR TETRAL FALLOT
35.82	TOTAL REPAIR OF TAPVC
35.83	TOT REP TRUNCUS ARTERIOS
35.84	TOT COR TRANSPOS GRT VES
35.91	INTERAT VEN RETRN TRANSP
35.92	CONDUIT RT VENT-PUL ART
35.93	CONDUIT LEFT VENTR-AORTA
35.94	CONDUIT ARTIUM-PULM ART
35.98	OTHER HEART SEPTA OPS
35.99	OTHER HEART VALVE OPS

Last Updated: Version 3.2

Table 5.03 Colon Surgery	
Code	Shortened Description
17.31	LAP MUL SEG RES LG INTES
17.32	LAPAROSCOPIC CECECTOMY
17.33	LAP RIGHT HEMICOLECTOMY
17.34	LAP RES TRANSVERSE COLON
17.35	LAP LEFT HEMICOLECTOMY
17.36	LAP SIGMOIDECTOMY
17.39	LAP PT EX LRG INTEST NEC
45.00	INTESTINAL INCISION NOS
45.03	LARGE BOWEL INCISION
45.49	DESTRUC LG BOWEL LES NEC
45.50	INTEST SEG ISOLAT NOS
45.71	OPN MUL SEG LG INTES NEC
45.72	OPEN CECECTOMY NEC
45.73	OPN RT HEMICOLECTOMY NEC
45.74	OPN TRANSV COLON RES NEC
45.75	OPN LFT HEMICOLECTMY NEC
45.76	OPEN SIGMOIDECTOMY NEC
45.79	PRT LG INTES EXC NEC/NOS
45.90	INTESTINAL ANASTOM NOS
45.92	SM BOWEL-RECT STUMP ANAS
45.93	SMALL-TO-LARGE BOWEL NEC
45.94	LG-TO-LG BOWEL ANASTOM
45.95	ANAL ANASTOMOSIS
46.03	LG BOWEL EXTERIORIZATION
46.04	RESECT EXT SEG LG BOWEL
46.13	PERMANENT COLOSTOMY
46.75	SUTURE LG BOWEL LACERAT

Table 5.03 Colon Surgery	
Code	Shortened Description
46.76	CLOSE LG BOWEL FISTULA
46.91	MYOTOMY OF SIGMOID COLON
46.92	MYOTOMY OF COLON NEC
46.94	REVISE LG BOWEL ANASTOM
48.50	ABDPERNEAL RES RECTM NOS
48.61	TRANS SAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC

Last Updated: Version 3.2

Table 5.04 Hip Arthroplasty	
Code	Shortened Description
81.51	TOTAL HIP REPLACEMENT
81.52	PARTIAL HIP REPLACEMENT

Last Updated: Version 3.2

Table 5.05 Knee Arthroplasty	
Code	Shortened Description
81.54	TOTAL KNEE REPLACEMENT

Last Updated: Version 3.2

Table 5.06 Abdominal Hysterectomy	
Code	Shortened Description
68.31	LAP SCERVIC HYSTERECTOMY
68.49	TOTAL ABD HYST NEC/NOS
68.69	RADICAL ABD HYST NEC/NOS

Last Updated: Version 3.2

Table 5.07 Vaginal Hysterectomy	
Code	Shortened Description
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.79	RADICAL VAG HYST NEC/NOS

Code	Shortened Description
38.14	ENDARTERECTOMY OF AORTA
38.16	ABDOMINAL ENDARTERECTOMY
38.18	LOWER LIMB ENDARTERECT
38.34	AORTA RESECTION & ANAST
38.36	ABD VESSEL RESECT/ANAST
38.37	ABD VEIN RESECT & ANAST
38.44	RESECT ABDOM AORTA W REPL
38.48	LEG ARTERY RESEC W REPLA
38.49	LEG VEIN RESECT W REPLAC
38.64	EXCISION OF AORTA
39.25	AORTA-ILIAC-FEMOR BYPASS
39.26	INTRA-ABDOMIN SHUNT NEC
39.29	VASC SHUNT & BYPASS NEC

Last Updated: Version 3.2

Code	Shortened Description
001.0	CHOLERA D/T VIB CHOLERAE
001.1	CHOLERA D/T VIB EL TOR
001.9	CHOLERA NOS
002.0	TYPHOID FEVER
002.1	PARATYPHOID FEVER A
002.2	PARATYPHOID FEVER B
002.3	PARATYPHOID FEVER C
002.9	PARATYPHOID FEVER NOS
003.0	SALMONELLA ENTERITIS
003.1	SALMONELLA SEPTICEMIA
003.20	LOCAL SALMONELLA INF NOS
003.21	SALMONELLA MENINGITIS
003.22	SALMONELLA PNEUMONIA
003.23	SALMONELLA ARTHRITIS
003.24	SALMONELLA OSTEOMYELITIS
003.29	LOCAL SALMONELLA INF NEC
003.8	SALMONELLA INFECTION NEC
003.9	SALMONELLA INFECTION NOS
004.0	SHIGELLA DYSENTERIAE
004.1	SHIGELLA FLEXNERI
004.2	SHIGELLA BOYDII
004.3	SHIGELLA SONNEI
004.8	SHIGELLA INFECTION NEC
004.9	SHIGELLOSIS NOS
006.0	AC AMEBIASIS W/O ABSCESS

Table 5.09 Infection

Code	Shortened Description
006.1	CHR AMEBIASIS W/O ABSCESS
006.2	AMEBIC NONDYSSENT COLITIS
006.3	AMEBIC LIVER ABSCESS
006.4	AMEBIC LUNG ABSCESS
006.5	AMEBIC BRAIN ABSCESS
006.6	AMEBIC SKIN ULCERATION
006.8	AMEBIC INFECTION NEC
006.9	AMEBIASIS NOS
007.1	GIARDIASIS
008.00	INTEST INFEC E COLI NOS
008.01	INT INF E COLI ENTRPATH
008.02	INT INF E COLI ENTRTOXGN
008.03	INT INF E COLI ENTRNVSV
008.04	INT INF E COLI ENTRHMRG
008.09	INT INF E COLI SPCF NEC
008.1	ARIZONA ENTERITIS
008.2	AEROBACTER ENTERITIS
008.3	PROTEUS ENTERITIS
008.41	STAPHYLOCOCC ENTERITIS
008.42	PSEUDOMONAS ENTERITIS
008.43	INT INFEC CAMPYLOBACTER
008.44	INT INF YRSNIA ENTRCLTCA
008.45	INT INF CLSTRDIUM DFCILE
008.46	INTES INFEC OTH ANEROBES
008.47	INT INF OTH GRM NEG BCTR
008.49	BACTERIAL ENTERITIS NEC
008.5	BACTERIAL ENTERITIS NOS
008.8	VIRAL ENTERITIS NOS
009.0	INFECTIOUS ENTERITIS NOS
009.1	ENTERITIS OF INFECT ORIG
009.2	INFECTIOUS DIARRHEA NOS
009.3	DIARRHEA OF INFECT ORIG
020.0	BUBONIC PLAGUE
020.1	CELLULOCUTANEOUS PLAGUE
020.2	SEPTICEMIC PLAGUE
020.3	PRIMARY PNEUMONIC PLAGUE
020.4	SECONDARY PNEUMON PLAGUE
020.5	PNEUMONIC PLAGUE NOS
020.8	OTHER TYPES OF PLAGUE
020.9	PLAGUE NOS
021.0	ULCEROGLANDUL TULAREMIA
021.1	ENTERIC TULAREMIA
021.2	PULMONARY TULAREMIA
021.3	OCULOGLANDULAR TULAREMIA
021.8	TULAREMIA NEC

Table 5.09 Infection

Code	Shortened Description
021.9	TULAREMIA NOS
022.0	CUTANEOUS ANTHRAX
022.1	PULMONARY ANTHRAX
022.2	GASTROINTESTINAL ANTHRAX
022.3	ANTHRAX SEPTICEMIA
022.8	OTHER ANTHRAX MANIFEST
022.9	ANTHRAX NOS
023.0	BRUCELLA MELITENSIS
023.1	BRUCELLA ABORTUS
023.2	BRUCELLA SUIS
023.3	BRUCELLA CANIS
023.8	BRUCellosis NEC
023.9	BRUCellosis NOS
024	GLANDERS
025	MELIOIDOSIS
026.0	SPIRILLARY FEVER
026.1	STREPTOBACILLARY FEVER
026.9	RAT-BITE FEVER NOS
027.0	LISTERIOSIS
027.1	ERYSIPELOTHRIX INFECTION
027.2	PASTEURELLOSIS
027.8	ZOONOTIC BACT DIS NEC
027.9	ZOONOTIC BACT DIS NOS
030.0	LEPROMATOUS LEPROSY
030.1	TUBERCULOID LEPROSY
030.2	INDETERMINATE LEPROSY
030.3	BORDERLINE LEPROSY
030.8	LEPROSY NEC
030.9	LEPROSY NOS
031.0	PULMONARY MYCOBACTERIA
031.1	CUTANEOUS MYCOBACTERIA
031.2	DMAC BACTEREMIA
031.8	MYCOBACTERIAL DIS NEC
031.9	MYCOBACTERIAL DIS NOS
032.0	FAUCIAL DIPHTHERIA
032.1	NASOPHARYNX DIPHTHERIA
032.2	ANT NASAL DIPHTHERIA
032.3	LARYNGEAL DIPHTHERIA
032.81	CONJUNCTIVAL DIPHTHERIA
032.82	DIPHTHERITIC MYOCARDITIS
032.83	DIPHTHERITIC PERITONITIS
032.84	DIPHTHERITIC CYSTITIS
032.85	CUTANEOUS DIPHTHERIA
032.89	DIPHTHERIA NEC
032.9	DIPHTHERIA NOS

Table 5.09 Infection	
Code	Shortened Description
033.0	BORDETELLA PERTUSSIS
033.1	BORDETELLA PARAPERTUSSIS
033.8	WHOOPING COUGH NEC
033.9	WHOOPING COUGH NOS
034.0	STREP SORE THROAT
034.1	SCARLET FEVER
035	ERYSIPELAS
036.0	MENINGOCOCCAL MENINGITIS
036.1	MENINGOCOCC ENCEPHALITIS
036.2	MENINGOCOCCEMIA
036.3	MENINGOCOCC ADRENAL SYND
036.40	MENINGOCOCC CARDITIS NOS
036.41	MENINGOCOCC PERICARDITIS
036.42	MENINGOCOCC ENDOCARDITIS
036.43	MENINGOCOCC MYOCARDITIS
036.81	MENINGOCOCC OPTIC NEURIT
036.82	MENINGOCOCC ARTHROPATHY
036.89	MENINGOCOCCAL INFECT NEC
036.9	MENINGOCOCCAL INFECT NOS
037	TETANUS
038.0	STREPTOCOCCAL SEPTICEMIA
038.10	STAPHYLOCOCC SEPTICEM NOS
038.11	METH SUSC STAPH AUR SEPT
038.12	MRSA SEPTICEMIA
038.19	STAPHYLOCOCC SEPTICEM NEC
038.2	PNEUMOCOCCAL SEPTICEMIA
038.3	ANAEROBIC SEPTICEMIA
038.40	GRAM-NEG SEPTICEMIA NOS
038.41	H. INFLUENAE SEPTICEMIA
038.42	E COLI SEPTICEMIA
038.43	PSEUDOMONAS SEPTICEMIA
038.44	SERRATIA SEPTICEMIA
038.49	GRAM-NEG SEPTICEMIA NEC
038.8	SEPTICEMIA NEC
038.9	SEPTICEMIA NOS
039.0	CUTANEOUS ACTINOMYCOSIS
039.1	PULMONARY ACTINOMYCOSIS
039.2	ABDOMINAL ACTINOMYCOSIS
039.3	CERVICOFAC ACTINOMYCOSIS
039.4	MADURA FOOT
039.8	ACTINOMYCOSIS NEC
039.9	ACTINOMYCOSIS NOS
040.0	GAS GANGRENE
040.1	RHINOSCLEROMA
040.2	WHIPPLE'S DISEASE

Table 5.09 Infection

Code	Shortened Description
040.3	NECROBACILLOSIS
040.81	TROPICAL PYOMYOSITIS
040.82	TOXIC SHOCK SYNDROME
040.89	BACTERIAL DISEASES NEC
041.00	STREPTOCOCCUS UNSPECF
041.01	STREPTOCOCCUS GROUP A
041.02	STREPTOCOCCUS GROUP B
041.03	STREPTOCOCCUS GROUP C
041.04	ENTEROCOCCUS GROUP D
041.05	STREPTOCOCCUS GROUP G
041.09	OTHER STREPTOCOCCUS
041.10	STAPHYLOCOCCUS UNSPCFIED
041.11	MTH SUS STPH AUR ELS/NOS
041.12	MRSA ELSEWHERE/NOS
041.19	OTHER STAPHYLOCOCCUS
041.2	PNEUMOCOCCUS INFECT NOS
041.3	KLEBSIELLA PNEUMONIAE
041.4	E. COLI INFECT NOS
041.5	H. INFLUENZAE INFECT NOS
041.6	PROTEUS INFECTION NOS
041.7	PSEUDOMONAS INFECT NOS
041.81	MYCOPLASMA
041.82	BACTEROIDES FRAGILIS
041.83	CLOSTRIDIUM PERFRINGENS
041.84	OTHER ANAEROBES
041.85	OTH GRAM NEGATV BACTERIA
041.86	HELICOBACTER PYLORI
041.89	OTH SPECF BACTERIA
041.9	BACTERIAL INFECTION NOS
051.2	CONTAGIOUS PUSTULAR DERM
073.0	ORNITHOSIS PNEUMONIA
073.7	ORNITHOSIS COMPLICAT NEC
073.8	ORNITHOSIS COMPLICAT NOS
073.9	ORNITHOSIS NOS
076.0	TRACHOMA, INITIAL STAGE
076.1	TRACHOMA, ACTIVE STAGE
076.9	TRACHOMA NOS
078.2	SWEATING FEVER
078.3	CAT-SCRATCH DISEASE
078.4	FOOT & MOUTH DISEASE
078.6	HEM NEPHROSONEPHRITIS
078.88	OTH SPEC DIS CHLAMYDIAE
079.88	OTH SPCF CHLAMYDIAL INFC
079.98	CHLAMYDIAL INFECTION NOS
082.40	EHRlichiosis NOS

Table 5.09 Infection

Code	Shortened Description
082.41	EHRlichiosis chafeensis
082.49	EHRlichiosis NEC
082.8	TICK-BORNE Ricketts NEC
082.9	TICK-BORNE Ricketts NOS
083.2	Rickettsialpox
083.8	Rickettsioses NEC
083.9	Rickettsiosis NOS
088.0	Bartonellosis
088.81	Lyme disease
090.0	Early cong syph symptom
090.1	Early congen syph latent
090.2	Early congen syph NOS
090.3	Syphilitic keratitis
090.40	Juvenile neurosyph NOS
090.41	Congen syph encephalitis
090.42	Congen syph meningitis
090.49	Juvenile neurosyph NEC
090.5	Late congen syph symptom
090.6	Late congen syph latent
090.7	Late congen syph NOS
090.9	Congenital syphilis NOS
091.0	Primary genital syphilis
091.1	Primary anal syphilis
091.2	Primary syphilis NEC
091.3	Secondary syph skin
091.4	Syphilitic adenopathy
091.50	Syphilitic uveitis NOS
091.51	Syphilitic chorioretinitis
091.52	Syphilitic iridocyclitis
091.61	Syphilitic periostitis
091.62	Syphilitic hepatitis
091.69	Second syph viscera NEC
091.7	Second syphilis relapse
091.81	Acute syphil meningitis
091.82	Syphilitic alopecia
091.89	Secondary syphilis NEC
091.9	Secondary syphilis NOS
092.0	Early syph latent relaps
092.9	Early syphil latent NOS
093.0	Aortic aneurysm, syphil
093.1	Syphilitic aortitis
093.20	Syphil endocarditis NOS
093.21	Syphilitic mitral valve
093.22	Syphilitic aortic valve
093.23	Syphil tricuspid valve

Table 5.09 Infection	
Code	Shortened Description
093.24	SYPHIL PULMONARY VALVE
093.81	SYPHILITIC PERICARDITIS
093.82	SYPHILITIC MYOCARDITIS
093.89	CARDIOVASCULAR SYPH NEC
093.9	CARDIOVASCULAR SYPH NOS
094.0	TABES DORSALIS
094.1	GENERAL PARESIS
094.2	SYPHILITIC MENINGITIS
094.3	ASYMPTOMAT NEUROSYPHILIS
094.81	SYPHILITIC ENCEPHALITIS
094.82	SYPHILITIC PARKINSONISM
094.83	SYPH DISSEM RETINITIS
094.84	SYPHILITIC OPTIC ATROPHY
094.85	SYPH RETROBULB NEURITIS
094.86	SYPHIL ACOUSTIC NEURITIS
094.87	SYPH RUPT CEREB ANEURYSM
094.89	NEUROSYPHILIS NEC
094.9	NEUROSYPHILIS NOS
095.0	SYPHILITIC EPISCLERITIS
095.1	SYPHILIS OF LUNG
095.2	SYPHILITIC PERITONITIS
095.3	SYPHILIS OF LIVER
095.4	SYPHILIS OF KIDNEY
095.5	SYPHILIS OF BONE
095.6	SYPHILIS OF MUSCLE
095.7	SYPHILIS OF TENDON/BURSA
095.8	LATE SYMPT SYPHILIS NEC
095.9	LATE SYMPT SYPHILIS NOS
096	LATE SYPHILIS LATENT
097.0	LATE SYPHILIS NOS
097.1	LATENT SYPHILIS NOS
097.9	SYPHILIS NOS
098.0	ACUTE GC INFECT LOWER GU
098.10	GC (ACUTE) UPPER GU NOS
098.11	GC CYSTITIS (ACUTE)
098.12	GC PROSTATITIS (ACUTE)
098.13	GC ORCHITIS (ACUTE)
098.14	GC SEM VESICULIT (ACUTE)
098.15	GC CERVICITIS (ACUTE)
098.16	GC ENDOMETRITIS (ACUTE)
098.17	ACUTE GC SALPINGITIS
098.19	GC (ACUTE) UPPER GU NEC
098.2	CHR GC INFECT LOWER GU
098.30	CHR GC UPPER GU NOS
098.31	GC CYSTITIS, CHRONIC

Table 5.09 Infection	
Code	Shortened Description
098.32	GC PROSTATITIS, CHRONIC
098.33	GC ORCHITIS, CHRONIC
098.34	GC SEM VESICULITIS, CHR
098.35	GC CERVICITIS, CHRONIC
098.36	GC ENDOMETRITIS, CHRONIC
098.37	GC SALPINGITIS (CHRONIC)
098.39	CHR GC UPPER GU NEC
098.40	GONOCOCCAL CONJUNCTIVIT
098.41	GONOCOCCAL IRIDOCYCLITIS
098.42	GONOCOCCAL ENDOPHTHALMIA
098.43	GONOCOCCAL KERATITIS
098.49	GONOCOCCAL EYE NEC
098.50	GONOCOCCAL ARTHRITIS
098.51	GONOCOCCAL SYNOVITIS
098.52	GONOCOCCAL BURSITIS
098.53	GONOCOCCAL SPONDYLITIS
098.59	GC INFECT JOINT NEC
098.6	GONOCOCCAL INFEC PHARYNX
098.7	GC INFECT ANUS & RECTUM
098.81	GONOCOCCAL KERATOSIS
098.82	GONOCOCCAL MENINGITIS
098.83	GONOCOCCAL PERICARDITIS
098.84	GONOCOCCAL ENDOCARDITIS
098.85	GONOCOCCAL HEART DIS NEC
098.86	GONOCOCCAL PERITONITIS
098.89	GONOCOCCAL INF SITE NEC
099.0	CHANCROID
099.1	LYMPHOGRANULOMA VENEREUM
099.2	GRANULOMA INGUINALE
099.3	REITER'S DISEASE
099.40	UNSPCF NONGNCCCL URETHRTS
099.41	CHLMYD TRACHOMATIS URETH
099.49	NONGC URTH OTH SPF ORGSM
099.50	OTH VD CHLM TRCH UNSP ST
099.51	OTH VD CHLM TRCH PHARYNX
099.52	OTH VD CHLM TRCH ANS RCT
099.53	OTH VD CHLM TRCH LOWR GU
099.54	OTH VD CHLM TRCH OTH GU
099.55	OT VD CHLM TRCH UNSPF GU
099.56	OT VD CHLM TRCH PRTONEUM
099.59	OTH VD CHLM TRCH SPCF ST
099.8	VENEREAL DISEASE NEC
099.9	VENEREAL DISEASE NOS
100.0	LEPTOSPIROS ICTEROHEM
100.81	LEPTOSPIRAL MENINGITIS

Table 5.09 Infection	
Code	Shortened Description
100.89	LEPTOSPIRAL INFECT NEC
100.9	LEPTOSPIROSIS NOS
101	VINCENT'S ANGINA
102.0	INITIAL LESIONS YAWS
102.1	MULTIPLE PAPILLOMATA
102.2	EARLY SKIN YAWS NEC
102.3	HYPERKERATOSIS OF YAWS
102.4	GUMMATA AND ULCERS, YAWS
102.5	GANGOSA
102.6	YAWS OF BONE & JOINT
102.7	YAWS MANIFESTATIONS NEC
102.8	LATENT YAWS
102.9	YAWS NOS
103.0	PINTA PRIMARY LESIONS
103.1	PINTA INTERMED LESIONS
103.2	PINTA LATE LESIONS
103.3	PINTA MIXED LESIONS
103.9	PINTA NOS
104.0	NONVENEREAL ENDEMIC SYPH
104.8	SPIROCHETAL INFECT NEC
104.9	SPIROCHETAL INFECT NOS
130.0	TOXOPLASM MENINGOENCEPH
130.1	TOXOPLASM CONJUNCTIVITIS
130.2	TOXOPLASM CHORIORETINIT
130.3	TOXOPLASMA MYOCARDITIS
130.4	TOXOPLASMA PNEUMONITIS
130.5	TOXOPLASMA HEPATITIS
130.7	TOXOPLASMOSIS SITE NEC
130.8	MULTISYSTEM TOXOPLASMOS
131.00	UROGENITAL TRICHOMON NOS
131.01	TRICHOMONAL VAGINITIS
131.02	TRICHOMONAL URETHRITIS
131.03	TRICHOMONAL PROSTATITIS
131.09	UROGENITAL TRICHOMON NEC
131.8	TRICHOMONIASIS NEC
131.9	TRICHOMONIASIS NOS
320.0	HEMOPHILUS MENINGITIS
320.1	PNEUMOCOCCAL MENINGITIS
320.2	STREPTOCOCCAL MENINGITIS
320.3	STAPHYLOCOCC MENINGITIS
320.7	MENING IN OTH BACT DIS
320.81	ANAEROBIC MENINGITIS
320.82	MNINGTS GRAM-NEG BCT NEC
320.89	MENINGITIS OTH SPCF BACT
320.9	BACTERIAL MENINGITIS NOS

Table 5.09 Infection	
Code	Shortened Description
322.9	MENINGITIS NOS
323.1	RICKETTSIAL ENCEPHALITIS
324.0	INTRACRANIAL ABSCESS
324.1	INTRASPINAL ABSCESS
324.9	CNS ABSCESS NOS
380.10	INFECTION OTITIS EXTERNA NOS
380.11	ACUTE INFECTION OF PINNA
380.12	ACUTE SWIMMERS' EAR
380.13	ACUTE INFECTION EXTERNAL EAR NEC
380.14	MALIGNANT OTITIS EXTERNA
380.15	CHRONIC MYCOBACTERIAL OTITIS EXTERNA
380.16	CHRONIC INFECTIOUS OTITIS EXTERNA NEC
380.21	CHOLESTEATOMA EXTERNAL EAR
380.22	ACUTE OTITIS EXTERNA NEC
380.23	CHRONIC OTITIS EXTERNA NEC
382.00	ACUTE SUPPURATIVE OTITIS MEDIA NOS
382.01	ACUTE SUPPURATIVE OTITIS MEDIA WITH DRUM RUPTURE
382.02	ACUTE SUPPURATIVE OTITIS MEDIA IN OTHER DISORDERS
382.1	CHRONIC TUBOTYMPANIC SUPPURATIVE OTITIS MEDIA
382.2	CHRONIC ATTICOANTRAL SUPPURATIVE OTITIS MEDIA
421.0	ACUTE/SUBACUTE BACTERIAL ENDOCARDITIS
421.1	ACUTE ENDOCARDITIS IN OTHER DISORDERS
421.9	ACUTE/SUBACUTE ENDOCARDITIS NOS
422.0	ACUTE MYOCARDITIS IN OTHER DISORDERS
422.90	ACUTE MYOCARDITIS NOS
422.91	IDIOPATHIC MYOCARDITIS
422.92	SEPTIC MYOCARDITIS
422.93	TOXIC MYOCARDITIS
422.99	ACUTE MYOCARDITIS NEC
462	ACUTE PHARYNGITIS
463	ACUTE TONSILLITIS
464.00	ACUTE LARYNGITIS WITHOUT OBSTRUCTION
464.01	ACUTE LARYNGITIS WITH OBSTRUCTION
464.10	ACUTE TRACHEITIS WITHOUT OBSTRUCTION
464.11	ACUTE TRACHEITIS WITH OBSTRUCTION
464.20	ACUTE LARYNGOTRACHEITIS WITHOUT OBSTRUCTION
464.21	ACUTE LARYNGOTRACHEITIS WITH OBSTRUCTION
464.30	ACUTE EPIGLOTTITIS WITHOUT OBSTRUCTION
464.31	ACUTE EPIGLOTTITIS WITH OBSTRUCTION
464.50	SUPRAGLOTTITIS WITHOUT OBSTRUCTION NOS
464.51	SUPRAGLOTTITIS WITH OBSTRUCTION NOS
475	PERITONSILLARY ABSCESS
476.0	CHRONIC LARYNGITIS
476.1	CHRONIC LARYNGOTRACHEITIS
481	PNEUMOCOCCAL PNEUMONIA

Table 5.09 Infection	
Code	Shortened Description
482.0	K. PNEUMONIAE PNEUMONIA
482.1	PSEUDOMONAL PNEUMONIA
482.2	H.INFLUENZAE PNEUMONIA
482.30	STREPTOCOCCAL PNEUMN NOS
482.31	PNEUMONIA STRPTOCOCCUS A
482.32	PNEUMONIA STRPTOCOCCUS B
482.39	PNEUMONIA OTH STREP
482.40	STAPHYLOCOCCAL PNEU NOS
482.41	METH SUS PNEUM D/T STAPH
482.42	METH RES PNEU D/T STAPH
482.49	STAPH PNEUMONIA NEC
482.81	PNEUMONIA ANAEROBES
482.82	PNEUMONIA E COLI
482.83	PNEUMO OTH GRM-NEG BACT
482.84	LEGIONNAIRES' DISEASE
482.89	PNEUMONIA OTH SPCF BACT
482.9	BACTERIAL PNEUMONIA NOS
483.0	PNEU MYCPLSM PNEUMONIAE
483.1	PNEUMONIA D/T CHLAMYDIA
483.8	PNEUMON OTH SPEC ORGNSM
484.1	PNEUM W CYTOMEG INCL DIS
484.3	PNEUMONIA IN WHOOP COUGH
484.5	PNEUMONIA IN ANTHRAX
484.6	PNEUM IN ASPERGILLOSIS
484.7	PNEUM IN OTH SYS MYCOSES
484.8	PNEUM IN INFECT DIS NEC
485	BRONCHOPNEUMONIA ORG NOS
486	PNEUMONIA, ORGANISM NOS
487.0	INFLUENZA WITH PNEUMONIA
487.1	FLU W RESP MANIFEST NEC
487.8	FLU W MANIFESTATION NEC
490	BRONCHITIS NOS
491.0	SIMPLE CHR BRONCHITIS
491.1	MUCOPURUL CHR BRONCHITIS
491.20	OBST CHR BRONC W/O EXAC
491.21	OBS CHR BRONC W(AC) EXAC
491.22	OBS CHR BRONC W AC BRONC
491.8	CHRONIC BRONCHITIS NEC
491.9	CHRONIC BRONCHITIS NOS
510.0	EMPHYEMA WITH FISTULA
510.9	EMPHYEMA W/O FISTULA
513.0	ABSCESS OF LUNG
513.1	ABSCESS OF MEDIASTINUM
540.0	AC APPEND W PERITONITIS
540.1	ABSCESS OF APPENDIX

Table 5.09 Infection	
Code	Shortened Description
540.9	ACUTE APPENDICITIS NOS
541	APPENDICITIS NOS
542	OTHER APPENDICITIS
562.01	DVRTCLI SML INT W/O HMRG
562.11	DVRTCLI COLON W/O HMRHG
562.13	DVRTCLI COLON W HMRHG
566	ANAL & RECTAL ABSCESS
567.21	PERITONITIS (ACUTE) GEN
567.22	PERITONEAL ABSCESS
567.23	SPONTAN BACT PERITONITIS
567.29	SUPPURAT PERITONITIS NEC
567.31	PSOAS MUSCLE ABSCESS
567.38	RETROPERITON ABSCESS NEC
567.39	RETROPERITON INFECT NEC
567.81	CHOLEPERITONITIS
567.82	SCLEROSING MESENTERITIS
567.89	PERITONITIS NEC
567.9	PERITONITIS NOS
569.5	INTESTINAL ABSCESS
569.61	COLOSTY/ENTEROST INFECTN
575.0	ACUTE CHOLECYSTITIS
590.00	CHR PYELONEPHRITIS NOS
590.01	CHR PYELONEPH W MED NECR
590.10	AC PYELONEPHRITIS NOS
590.11	AC PYELONEPHR W MED NECR
590.2	RENAL/PERIRENAL ABSCESS
590.3	PYELOURETERITIS CYSTICA
590.80	PYELONEPHRITIS NOS
590.81	PYELONEPHRIT IN OTH DIS
590.9	INFECTION OF KIDNEY NOS
595.0	ACUTE CYSTITIS
599.0	URIN TRACT INFECTION NOS
601.0	ACUTE PROSTATITIS
601.1	CHRONIC PROSTATITIS
601.2	ABSCESS OF PROSTATE
601.3	PROSTATOCYSTITIS
601.4	PROSTATITIS IN OTH DIS
601.8	PROSTATIC INFLAM DIS NEC
601.9	PROSTATITIS NOS
614.0	AC SALPINGO-OOPHORITIS
614.1	CHR SALPINGO-OOPHORITIS
614.2	SALPINGO-OOPHORITIS NOS
614.3	ACUTE PARAMETRITIS
614.4	CHRONIC PARAMETRITIS
614.5	AC PELV PERITONITIS-FEM

Table 5.09 Infection

Code	Shortened Description
614.7	CHR PELV PERITON NEC-FEM
616.2	BARTHOLIN'S GLAND CYST
616.3	BARTHOLIN'S GLND ABSCESS
616.4	ABSCESS OF VULVA NEC
639.0	POSTABORTION GU INFECT
646.60	GU INFECT IN PREG- UNSPEC
646.61	GU INFECTION-DELIVERED
646.62	GU INFECTION-DELIV W P/P
646.63	GU INFECTION-ANTEPARTUM
646.64	GU INFECTION-POSTPARTUM
670.00	MAJ PUERP INF NOS-UNSP
670.02	MAJ PUER INF NOS-DEL P/P
670.04	MAJOR PUERP INF NOS-P/P
674.30	OB SURG COMPL NEC-UNSPEC
674.32	OB SURG COMPL-DEL W P/P
674.34	OB SURG COMP NEC- POSTPAR
680.0	CARBUNCLE OF FACE
680.1	CARBUNCLE OF NECK
680.2	CARBUNCLE OF TRUNK
680.3	CARBUNCLE OF ARM
680.4	CARBUNCLE OF HAND
680.5	CARBUNCLE OF BUTTOCK
680.6	CARBUNCLE OF LEG
680.7	CARBUNCLE OF FOOT
680.8	CARBUNCLE, SITE NEC
680.9	CARBUNCLE NOS
681.00	CELLULITIS, FINGER NOS
681.01	FELON
681.02	ONYCHIA OF FINGER
681.10	CELLULITIS, TOE NOS
681.11	ONYCHIA OF TOE
681.9	CELLULITIS OF DIGIT NOS
682.0	CELLULITIS OF FACE
682.1	CELLULITIS OF NECK
682.2	CELLULITIS OF TRUNK
682.3	CELLULITIS OF ARM
682.4	CELLULITIS OF HAND
682.5	CELLULITIS OF BUTTOCK
682.6	CELLULITIS OF LEG
682.7	CELLULITIS OF FOOT
682.8	CELLULITIS, SITE NEC
682.9	CELLULITIS NOS
683	ACUTE LYMPHADENITIS
684	IMPETIGO
685.0	PILONIDAL CYST W ABSCESS

Table 5.09 Infection	
Code	Shortened Description
685.1	PILONIDAL CYST W/O ABSC
686.00	PYODERMA NOS
686.01	PYODERMA GANGRENOSUM
686.09	PYODERMA NEC
686.1	PYOGENIC GRANULOMA
686.8	LOCAL SKIN INFECTION NEC
686.9	LOCAL SKIN INFECTION NOS
711.90	INF ARTHRITIS NOS-UNSPEC
711.91	INF ARTHRITIS NOS-SHLDER
711.92	INF ARTHRITIS NOS-UP/ARM
711.93	INF ARTHRIT NOS-FOREARM
711.94	INF ARTHRIT NOS-HAND
711.95	INF ARTHRIT NOS-PELVIS
711.96	INF ARTHRIT NOS-L/LEG
711.97	INF ARTHRIT NOS-ANKLE
711.98	INF ARTHRIT NOS-OTH SITE
711.99	INF ARTHRITIS NOS-MULT
730.00	AC OSTEOMYELITIS-UNSPEC
730.01	AC OSTEOMYELITIS-SHLDER
730.02	AC OSTEOMYELITIS-UP/ARM
730.03	AC OSTEOMYELITIS-FOREARM
730.04	AC OSTEOMYELITIS-HAND
730.05	AC OSTEOMYELITIS-PELVIS
730.06	AC OSTEOMYELITIS-L/LEG
730.07	AC OSTEOMYELITIS-ANKLE
730.08	AC OSTEOMYELITIS NEC
730.09	AC OSTEOMYELITIS-MULT
730.10	CHR OSTEOMYELITIS-UNSP
730.11	CHR OSTEOMYELIT-SHLDER
730.12	CHR OSTEOMYELIT-UP/ARM
730.13	CHR OSTEOMYELIT-FOREARM
730.14	CHR OSTEOMYELIT-HAND
730.15	CHR OSTEOMYELIT-PELVIS
730.16	CHR OSTEOMYELIT-L/LEG
730.17	CHR OSTEOMYELIT-ANKLE
730.18	CHR OSTEOMYELIT NEC
730.19	CHR OSTEOMYELIT-MULT
730.20	OSTEOMYELITIS NOS-UNSPEC
730.21	OSTEOMYELITIS NOS-SHLDER
730.22	OSTEOMYELITIS NOS-UP/ARM
730.23	OSTEOMYELIT NOS-FOREARM
730.24	OSTEOMYELITIS NOS-HAND
730.25	OSTEOMYELITIS NOS-PELVIS
730.26	OSTEOMYELITIS NOS-L/LEG
730.27	OSTEOMYELITIS NOS-ANKLE

Table 5.09 Infection

Code	Shortened Description
730.28	OSTEOMYELIT NOS-OTH SITE
730.29	OSTEOMYELITIS NOS-MULT
730.30	PERIOSTITIS-UNSPEC
730.31	PERIOSTITIS-SHLDER
730.32	PERIOSTITIS-UP/ARM
730.33	PERIOSTITIS-FOREARM
730.34	PERIOSTITIS-HAND
730.35	PERIOSTITIS-PELVIS
730.70	POLIO OSTEOPATHY-UNSPEC
730.71	POLIO OSTEOPATHY-SHLDER
730.72	POLIO OSTEOPATHY-UP/ARM
730.73	POLIO OSTEOPATHY-FOREARM
730.74	POLIO OSTEOPATHY-HAND
730.75	POLIO OSTEOPATHY-PELVIS
730.76	POLIO OSTEOPATHY-L/LEG
730.77	POLIO OSTEOPATHY-ANKLE
730.78	POLIO OSTEOPATHY NEC
730.79	POLIO OSTEOPATHY-MULT
730.80	BONE INFECT NEC-UNSPEC
730.81	BONE INFECT NEC-SHLDER
730.82	BONE INFECT NEC-UP/ARM
730.83	BONE INFECT NEC-FOREARM
730.84	BONE INFECT NEC-HAND
730.85	BONE INFECT NEC-PELVIS
730.86	BONE INFECT NEC-L/LEG
730.87	BONE INFECT NEC-ANKLE
730.88	BONE INFECT NEC-OTH SITE
730.89	BONE INFECT NEC-MULT
730.90	BONE INFEC NOS-UNSP SITE
730.91	BONE INFECT NOS-SHLDER
730.92	BONE INFECT NOS-UP/ARM
730.93	BONE INFECT NOS-FOREARM
730.94	BONE INFECT NOS-HAND
730.95	BONE INFECT NOS-PELVIS
730.96	BONE INFECT NOS-L/LEG
730.97	BONE INFECT NOS-ANKLE
730.98	BONE INFECT NOS-OTH SITE
730.99	BONE INFECT NOS-MULT
785.52	SEPTIC SHOCK
790.7	BACTEREMIA
996.60	REACTION-UNSP DEVIC/GRFT
996.61	REACT-CARDIAC DEV/GRAFT
996.62	REACT-OTH VASC DEV/GRAFT
996.63	REACT-NERV SYS DEV/GRAFT
996.64	REACT-INDWELL URIN CATH

Table 5.09 Infection

Code	Shortened Description
996.65	REACT-OTH GENITOURIN DEV
996.66	REACT-INTER JOINT PROST
996.67	REACT-OTH INT ORTHO DEV
996.68	REACT- PERITON DIALY CATH
996.69	REACT-INT PROS DEVIC NEC
997.31	VENTLTR ASSOC PNEUMONIA
998.51	INFECTED POSTOP SEROMA
998.59	OTHER POSTOP INFECTION

Last Updated: Version 3.2

Table 5.10 Major Surgery

Code	Shortened Description
00.70	REV HIP REPL-ACETAB/FEM
00.71	REV HIP REPL-ACETAB COMP
00.72	REV HIP REPL-FEM COMP
00.73	REV HIP REPL-LINER/HEAD
00.77	HIP SURFACE, CERMC/POLY
00.80	REV KNEE REPLACEMT-TOTAL
00.81	REV KNEE REPL-TIBIA COMP
00.82	REV KNEE REPL-FEMUR COMP
00.83	REV KNEE REPLACE-PATELLA
00.84	REV KNEE REPL-TIBIA LIN
00.85	RESRF HIP,TOTAL-ACET/FEM
00.86	RESRF HIP,PART-FEM HEAD
00.87	RESRF HIP,PART-ACETABLUM
01.21	CRANIAL SINUS I & D
01.23	REOPEN CRANIOTOMY SITE
01.24	OTHER CRANIOTOMY
01.25	OTHER CRANIECTOMY
01.31	INCISE CEREBRAL MENINGES
01.32	LOBOTOMY & TRACTOTOMY
01.39	OTHER BRAIN INCISION
01.41	THALAMUS OPERATIONS
01.42	GLOBUS PALLIDUS OPS
01.51	EX CEREB MENINGEAL LES
01.52	HEMISPHERECTOMY
01.53	BRAIN LOBECTOMY
01.59	OTHER BRAIN EXCISION
17.31	LAP MUL SEG RES LG INTES
17.32	LAPAROSCOPIC CECECTOMY
17.33	LAP RIGHT HEMICOLECTOMY
17.34	LAP RES TRANSVERSE COLON
17.35	LAP LEFT HEMICOLECTOMY
17.36	LAP SIGMOIDECTOMY

Table 5.10 Major Surgery	
Code	Shortened Description
17.39	LAP PT EX LRG INTEST NEC
32.39	OTH SEG LUNG RESECT NOS
32.49	LOBECTOMY OF LUNG NEC
32.59	OTHER PNEUMONECTOMY NOS
34.51	DECORTICATION OF LUNG
34.59	OTHER PLEURAL EXCISION
34.81	EXCISE DIAPHRAGM LESION
34.82	SUTURE DIAPHRAGM LACERAT
34.83	CLOSE DIAPHRAGM FISTULA
34.84	OTHER DIAPHRAGM REPAIR
34.89	DIAPHRAGM OPERATION NEC
35.10	OPEN VALVULOPLASTY NOS
35.11	OPN AORTIC VALVULOPLASTY
35.12	OPN MITRAL VALVULOPLASTY
35.13	OPN PULMON VALVULOPLASTY
35.14	OPN TRICUS VALVULOPLASTY
35.20	REPLACE HEART VALVE NOS
35.21	REPLACE AORT VALV-TISSUE
35.22	REPLACE AORTIC VALVE NEC
35.23	REPLACE MITR VALV-TISSUE
35.24	REPLACE MITRAL VALVE NEC
35.25	REPLACE PULM VALV-TISSUE
35.26	REPLACE PULMON VALVE NEC
35.27	REPLACE TRIC VALV-TISSUE
35.28	REPLACE TRICUSP VALV NEC
35.31	PAPILLARY MUSCLE OPS
35.32	CHORDAE TENDINEAE OPS
35.33	ANNULOPLASTY
35.34	INFUNDIBULECTOMY
35.35	TRABECUL CARNEAE CORD OP
35.39	TISS ADJ TO VALV OPS NEC
35.42	CREATE SEPTAL DEFECT
35.50	PROSTH REP HRT SEPTA NOS
35.51	PROS REP ATRIAL DEF-OPN
35.53	PROS REP VENTRIC DEF-OPN
35.54	PROS REP ENDOCAR CUSHION
35.60	GRFT REPAIR HRT SEPT NOS
35.61	GRAFT REPAIR ATRIAL DEF
35.62	GRAFT REPAIR VENTRIC DEF
35.63	GRFT REP ENDOCAR CUSHION
35.70	HEART SEPTA REPAIR NOS
35.71	ATRIA SEPTA DEF REP NEC
35.72	VENTR SEPTA DEF REP NEC
35.73	ENDOCAR CUSHION REP NEC
35.81	TOT REPAIR TETRAL FALLOT

Table 5.10 Major Surgery	
Code	Shortened Description
35.82	TOTAL REPAIR OF TAPVC
35.83	TOT REP TRUNCUS ARTERIOS
35.84	TOT COR TRANSPOS GRT VES
35.91	INTERAT VEN RETRN TRANSP
35.92	CONDUIT RT VENT-PUL ART
35.93	CONDUIT LEFT VENTR-AORTA
35.94	CONDUIT ARTIUM-PULM ART
35.98	OTHER HEART SEPTA OPS
35.99	OTHER HEART VALVE OPS
36.03	OPEN CORONRY ANGIOPLASTY
36.10	AORTOCORONARY BYPASS NOS
36.11	AORTOCOR BYPAS-1 COR ART
36.12	AORTOCOR BYPAS-2 COR ART
36.13	AORTOCOR BYPAS-3 COR ART
36.14	AORTCOR BYPAS-4+ COR ART
36.15	1 INT MAM-COR ART BYPASS
36.16	2 INT MAM-COR ART BYPASS
36.17	ABD-CORON ARTERY BYPASS
36.19	HRT REVAS BYPS ANAS NEC
36.31	OPEN CHEST TRANS REVASC
36.91	CORON VESS ANEURYSM REP
36.99	HEART VESSEL OP NEC
37.10	INCISION OF HEART NOS
37.11	CARDIOTOMY
37.32	HEART ANEURYSM EXCISION
37.33	EXC/DEST HRT LESION OPEN
37.35	PARTIAL VENTRICULECTOMY
37.36	EXC LEFT ATRIAL APPENDAG
37.41	IMPL CARDIAC SUPPORT DEV
37.49	HEART/PERICARD REPR NEC
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.55	REM INT BIVENT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.64	REMVE EXT HRT ASSIST SYS
37.66	IMPLANTABLE HRT ASSIST
37.67	IMP CARDIOMYOSTIMUL SYS
38.14	ENDARTERECTOMY OF AORTA
38.16	ABDOMINAL ENDARTERECTOMY
38.18	LOWER LIMB ENDARTERECT
38.34	AORTA RESECTION & ANAST

Table 5.10 Major Surgery	
Code	Shortened Description
38.36	ABD VESSEL RESECT/ANAST
38.37	ABD VEIN RESECT & ANAST
38.44	RESECT ABDM AORTA W REPL
38.48	LEG ARTERY RESEC W REPLA
38.49	LEG VEIN RESECT W REPLAC
38.64	EXCISION OF AORTA
39.25	AORTA-ILIAC-FEMOR BYPASS
39.26	INTRA-ABDOMIN SHUNT NEC
39.29	VASC SHUNT & BYPASS NEC
41.5	TOTAL SPLENECTOMY
42.01	ESOPHAGEAL WEB INCISION
42.09	ESOPHAGEAL INCISION NEC
42.10	ESOPHAGOSTOMY NOS
42.11	CERVICAL ESOPHAGOSTOMY
42.12	ESOPH POUCH EXTERIORIZAT
42.19	EXT FISTULIZAT ESOPH NEC
42.40	ESOPHAGECTOMY NOS
42.41	PARTIAL ESOPHAGECTOMY
42.42	TOTAL ESOPHAGECTOMY
42.51	THORAC ESOPHAGUESOPHAGOS
42.52	THORAC ESOPHAGOGASTROST
42.53	THORAC SM BOWEL INTERPOS
42.54	THORAC ESOPHAGOENTER NEC
42.55	THORAC LG BOWEL INTERPOS
42.56	THORAC ESOPHAGOCOLOS NEC
42.58	THORAC INTERPOSITION NEC
42.59	THORAC ESOPHAG ANAST NEC
42.61	STERN ESOPHAGUESOPHAGOST
42.62	STERN ESOPHAGOGASTROSTOM
42.63	STERN SM BOWEL INTERPOS
42.64	STERN ESOPHAGOENTER NEC
42.65	STERN LG BOWEL INTERPOS
42.66	STERN ESOPHAGOCOLOS NEC
42.68	STERN INTERPOSITION NEC
42.69	STERN ESOPHAG ANAST NEC
42.82	SUTURE ESOPHAGEAL LACER
42.83	ESOPHAGOSTOMY CLOSURE
42.84	ESOPH FISTULA REPAIR NEC
42.85	ESOPHAG STRICTURE REPAIR
42.86	PROD SUBQ TUNNEL NO ANAS
42.87	ESOPHAGEAL GRAFT NEC
42.89	ESOPHAGEAL REPAIR NEC
43.5	PROXIMAL GASTRECTOMY
43.6	DISTAL GASTRECTOMY
43.7	PART GASTREC W JEJ ANAST

Table 5.10 Major Surgery	
Code	Shortened Description
43.81	PART GAST W JEJ TRANSPOS
43.89	PARTIAL GASTRECTOMY NEC
43.91	TOT GAST W INTES INTERPO
43.99	TOTAL GASTRECTOMY NEC
44.00	VAGOTOMY NOS
44.01	TRUNCAL VAGOTOMY
44.02	HIGHLY SELECT VAGOTOMY
44.03	SELECTIVE VAGOTOMY NEC
44.21	DILATE PYLORUS, INCISION
44.29	OTHER PYLOROPLASTY
44.31	HIGH GASTRIC BYPASS
44.39	GASTROENTEROSTOMY NEC
44.40	SUTURE PEPTIC ULCER NOS
44.41	SUT GASTRIC ULCER SITE
44.42	SUTURE DUODEN ULCER SITE
44.5	REVISION GASTRIC ANASTOM
44.61	SUTURE GASTRIC LACERAT
44.63	CLOSE GASTRIC FISTUL NEC
44.64	GASTROPEXY
44.65	ESOPHAGOGASTROPLASTY
44.66	CREAT ESOPHAGASTR SPHINC
44.69	GASTRIC REPAIR NEC
44.91	LIGATE GASTRIC VARICES
44.92	INTRAOP GASTRIC MANIPUL
44.99	GASTRIC OPERATION NEC
45.00	INTESTINAL INCISION NOS
45.01	DUODENAL INCISION
45.02	SMALL BOWEL INCISION NEC
45.03	LARGE BOWEL INCISION
45.31	OTH EXCISE DUODENUM LES
45.32	DESTRUCT DUODEN LES NEC
45.33	LOCAL EXCIS SM BOWEL NEC
45.34	DESTR SM BOWEL LES NEC
45.41	EXCISE LG INTESTINE LES
45.49	DESTRUC LG BOWEL LES NEC
45.50	INTEST SEG ISOLAT NOS
45.51	SM BOWEL SEGMENT ISOLAT
45.52	LG BOWEL SEGMENT ISOLAT
45.61	MULT SEG SM BOWEL EXCIS
45.62	PART SM BOWEL RESECT NEC
45.63	TOTAL REMOVAL SM BOWEL
45.71	OPN MUL SEG LG INTES NEC
45.72	OPEN CECECTOMY NEC
45.73	OPN RT HEMICOLECTOMY NEC
45.74	OPN TRANSV COLON RES NEC

Table 5.10 Major Surgery	
Code	Shortened Description
45.75	OPN LFT HEMICOLECTMY NEC
45.76	OPEN SIGMOIDECTOMY NEC
45.79	PRT LG INTES EXC NEC/NOS
45.82	OP TOT INTR-ABD COLECTMY
45.83	TOT ABD COLECTMY NEC/NOS
45.90	INTESTINAL ANASTOM NOS
45.91	SM-TO-SM BOWEL ANASTOM
45.92	SM BOWEL-RECT STUMP ANAS
45.93	SMALL-TO-LARGE BOWEL NEC
45.94	LG-TO-LG BOWEL ANASTOM
45.95	ANAL ANASTOMOSIS
46.01	SM BOWEL EXTERIORIZATION
46.02	RESECT EXT SEG SM BOWEL
46.03	LG BOWEL EXTERIORIZATION
46.04	RESECT EXT SEG LG BOWEL
46.11	TEMPORARY COLOSTOMY
46.13	PERMANENT COLOSTOMY
46.20	ILEOSTOMY NOS
46.21	TEMPORARY ILEOSTOMY
46.22	CONTINENT ILEOSTOMY
46.23	PERMANENT ILEOSTOMY NEC
46.42	PERICOLOST HERNIA REPAIR
46.43	LG BOWEL STOMA REVIS NEC
46.50	INTEST STOMA CLOSURE NOS
46.51	SM BOWEL STOMA CLOSURE
46.52	LG BOWEL STOMA CLOSURE
46.60	INTESTINAL FIXATION NOS
46.61	SM BOWEL-ABD WALL FIXAT
46.62	SMALL BOWEL FIXATION NEC
46.63	LG BOWEL-ABD WALL FIXAT
46.64	LARGE BOWEL FIXATION NEC
46.71	DUODENAL LACERAT SUTURE
46.72	DUODENAL FISTULA CLOSURE
46.75	SUTURE LG BOWEL LACERAT
46.76	CLOSE LG BOWEL FISTULA
46.79	REPAIR OF INTESTINE NEC
46.91	MYOTOMY OF SIGMOID COLON
46.92	MYOTOMY OF COLON NEC
46.94	REVISE LG BOWEL ANASTOM
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.41	SOAVE SUBMUC RECT RESECT
48.49	PULL-THRU RECT RESEC NEC
48.50	ABDPERNEAL RES RECTM NOS
48.52	OPN ABDPERNEAL RESC REC

Table 5.10 Major Surgery	
Code	Shortened Description
48.59	ABDPERNEAL RESC RECT NEC
48.61	TRANSSAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC
48.72	CLOSURE OF PROCTOSTOMY
48.73	CLOSE RECTAL FIST NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
50.0	HEPATOTOMY
50.21	MARSUPIALIZAT LIVER LES
50.22	PARTIAL HEPATECTOMY
50.29	DESTRUC HEPATIC LES NEC
50.3	HEPATIC LOBECTOMY
51.31	GB-TO-HEPAT DUCT ANAST
51.32	GB-TO-INTESTINE ANASTOM
51.33	GB-TO-PANCREAS ANASTOM
51.34	GB-TO-STOMACH ANASTOMOS
51.35	GALLBLADDER ANASTOM NEC
51.36	CHOLEDOCHOENTEROSTOMY
51.37	HEPATIC DUCT-GI ANASTOM
51.39	BILE DUCT ANASTOMOS NEC
51.41	CDE FOR CALCULUS REMOV
51.42	CDE FOR OBSTRUCTION NEC
51.49	INCIS OBSTR BILE DUC NEC
51.51	COMMON DUCT EXPLORATION
51.59	BILE DUCT INCISION NEC
51.61	EXCIS CYST DUCT REMNANT
51.62	EXCIS AMPULLA OF VATER
51.63	COMMON DUCT EXCIS NEC
51.69	BILE DUCT EXCISION NEC
51.71	SIMPLE SUT-COMMON DUCT
51.72	CHOLEDOCHOPLASTY
51.79	BILE DUCT REPAIR NEC
51.81	SPHINCTER OF ODDI DILAT
51.82	PANCREAT SPHINCTEROTOM
51.83	PANCREAT SPHINCTEROPLAS
51.89	SPHINCT OF ODDI OP NEC
51.91	REPAIR GB LACERATION
51.92	CLOSURE CHOLECYSTOSTOMY
51.93	CLOS BILIARY FISTUL NEC
51.94	REVIS BILE TRACT ANASTOM

Table 5.10 Major Surgery	
Code	Shortened Description
51.95	REMOVE BILE DUCT PROSTH
51.99	BILIARY TRACT OP NEC
52.09	PANCREATOTOMY NEC
52.22	OTHER DESTRU PANCREA LES
52.3	PANCREAT CYST MARSUPIALI
52.4	INT DRAIN PANCREAT CYST
52.51	PROXIMAL PANCREATECTOMY
52.52	DISTAL PANCREATECTOMY
52.53	RAD SUBTOT PANCREATECTOM
52.59	PARTIAL PANCREATECT NEC
52.6	TOTAL PANCREATECTOMY
52.7	RAD PANCREATICODUODENECT
52.92	CANNULATION PANCREA DUC
52.95	PANCREATIC REPAIR NEC
52.96	PANCREATIC ANASTOMOSIS
52.99	PANCREATIC OPERATION NEC
53.72	OPN ABD DIAPHRM HERN NEC
53.75	ABD REP-DIAPHR HERN NOS
53.80	THOR REP-DIAPH HERN NOS
53.81	DIAPHRAGMATIC PLICATION
53.82	PARASTERN HERNIA REPAIR
53.84	OPN THORC DIAPH HERN NEC
54.11	EXPLORATORY LAPAROTOMY
54.12	REOPEN RECENT LAP SITE
54.19	LAPAROTOMY NEC
54.4	DESTRUCT PERITONEAL TISS
54.59	OTH PERITON ADHESIOLYSIS
54.61	RECLOSE POST OP DISRUPT
54.62	DELAYED CLOS ABD WOUND
54.63	ABD WALL SUTURE NEC
54.64	PERITONEAL SUTURE
54.71	REPAIR OF GASTROSCHISIS
54.72	ABDOMEN WALL REPAIR NEC
54.73	PERITONEAL REPAIR NEC
54.74	OMENTAL REPAIR NEC
54.75	MESENTERIC REPAIR NEC
54.92	REMOVE FB FROM PERITON
54.94	CREAT PERITONEOVAS SHUNT
54.95	PERITONEAL INCISION
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
56.51	FORM CUTAN ILEOURETEROST

Table 5.10 Major Surgery	
Code	Shortened Description
56.52	REVIS CUTAN ILEOURETEROS
56.71	URIN DIVERSION TO BOWEL
56.72	REVIS URETEROENTEROSTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.09	PERIREN/URETER INCIS NEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY
65.22	OVARIAN WEDGE RESECTION
65.29	LOCAL DESTR OVA LES NEC
65.39	OTH UNILAT OOPHORECTOMY
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
68.31	LAP SCERVIC HYSTERECTOMY
68.49	TOTAL ABD HYST NEC/NOS
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.69	RADICAL ABD HYST NEC/NOS

Code	Shortened Description
68.79	RADICAL VAG HYST NEC/NOS
81.40	REPAIR OF HIP, NEC
81.51	TOTAL HIP REPLACEMENT
81.52	PARTIAL HIP REPLACEMENT
81.53	REVISE HIP REPLACEMT NOS
81.54	TOTAL KNEE REPLACEMENT
81.55	REVISE KNEE REPLACE NOS

Last Updated: Version 3.2

Code	Shortened Description
35.10	OPEN VALVULOPLASTY NOS
35.11	OPN AORTIC VALVULOPLASTY
35.12	OPN MITRAL VALVULOPLASTY
35.13	OPN PULMON VALVULOPLASTY
35.14	OPN TRICUS VALVULOPLASTY
35.20	REPLACE HEART VALVE NOS
35.21	REPLACE AORT VALV-TISSUE
35.22	REPLACE AORTIC VALVE NEC
35.23	REPLACE MITR VALV-TISSUE
35.24	REPLACE MITRAL VALVE NEC
35.25	REPLACE PULM VALV-TISSUE
35.26	REPLACE PULMON VALVE NEC
35.27	REPLACE TRIC VALV-TISSUE
35.28	REPLACE TRICUSP VALV NEC
35.31	PAPILLARY MUSCLE OPS
35.32	CHORDAE TENDINEAE OPS
35.33	ANNULOPLASTY
35.34	INFUNDIBULECTOMY
35.35	TRABECUL CARNEAE CORD OP
35.39	TISS ADJ TO VALV OPS NEC
35.42	CREATE SEPTAL DEFECT
35.50	PROSTH REP HRT SEPTA NOS
35.51	PROS REP ATRIAL DEF-OPN
35.53	PROS REP VENTRIC DEF-OPN
35.54	PROS REP ENDOCAR CUSHION
35.60	GRFT REPAIR HRT SEPT NOS
35.61	GRAFT REPAIR ATRIAL DEF
35.62	GRAFT REPAIR VENTRIC DEF
35.63	GRFT REP ENDOCAR CUSHION
35.70	HEART SEPTA REPAIR NOS
35.71	ATRIA SEPTA DEF REP NEC
35.72	VENTR SEPTA DEF REP NEC

Table 5.11 Cardiac Surgery	
Code	Shortened Description
35.73	ENDOCAR CUSHION REP NEC
35.81	TOT REPAIR TETRAL FALLOT
35.82	TOTAL REPAIR OF TAPVC
35.83	TOT REP TRUNCUS ARTERIOS
35.84	TOT COR TRANSPOS GRT VES
35.91	INTERAT VEN RETRNR TRANSP
35.92	CONDUIT RT VENT-PUL ART
35.93	CONDUIT LEFT VENTR-AORTA
35.94	CONDUIT ARTIUM-PULM ART
35.98	OTHER HEART SEPTA OPS
35.99	OTHER HEART VALVE OPS
36.03	OPEN CORONRY ANGIOPLASTY
36.10	AORTOCORONARY BYPASS NOS
36.11	AORTOCOR BYPAS-1 COR ART
36.12	AORTOCOR BYPAS-2 COR ART
36.13	AORTOCOR BYPAS-3 COR ART
36.14	AORTCOR BYPAS-4+ COR ART
36.15	1 INT MAM-COR ART BYPASS
36.16	2 INT MAM-COR ART BYPASS
36.17	ABD-CORON ARTERY BYPASS
36.19	HRT REVAS BYPS ANAS NEC
36.31	OPEN CHEST TRANS REVASC
36.91	CORON VESS ANEURYSM REP
36.99	HEART VESSEL OP NEC
37.10	INCISION OF HEART NOS
37.11	CARDIOTOMY
37.32	HEART ANEURYSM EXCISION
37.33	EXC/DEST HRT LESION OPEN
37.35	PARTIAL VENTRICULECTOMY
37.36	EXC LEFT ATRIAL APPENDAG
37.41	IMPL CARDIAC SUPPORT DEV
37.49	HEART/PERICARD REPR NEC
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.55	REM INT BIVENT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.64	REMVE EXT HRT ASSIST SYS
37.66	IMPLANTABLE HRT ASSIST
37.67	IMP CARDIOMYOSTIMUL SYS

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Table 5.13 Hip Fractures	
Code	Shortened Description
733.10	PATH FX UNSPECIFIED SITE
733.14	PATH FX NECK OF FEMUR
733.15	PATH FX OTH SPCF PRT FMR
808.0	FRACTURE ACETABULUM-CLOS
808.1	FRACTURE ACETABULUM-OPEN
808.2	FRACTURE OF PUBIS-CLOSED
808.3	FRACTURE OF PUBIS-OPEN
808.41	FRACTURE OF ILIUM-CLOSED
808.42	FRACTURE ISCHIUM-CLOSED
808.43	PELV FX-CLOS/PELV DISRUP
808.49	PELVIC FRACTURE NEC-CLOS
808.51	FRACTURE OF ILIUM-OPEN
808.52	FRACTURE OF ISCHIUM-OPEN
808.53	PELV FX-OPEN/PELV DISRUP
808.59	PELVIC FRACTURE NEC-OPEN
808.8	PELVIC FRACTURE NOS-CLOS
808.9	PELVIC FRACTURE NOS-OPEN
820.00	FX FEMUR INTRCAPS NOS-CL
820.01	FX UP FEMUR EPIPHY-CLOS
820.02	FX FEMUR, MIDCERVIC-CLOS
820.03	FX BASE FEMORAL NCK-CLOS
820.09	FX FEMUR INTRCAPS NEC-CL
820.10	FX FEMUR INTRCAP NOS-OPN
820.11	FX UP FEMUR EPIPHY-OPEN
820.12	FX FEMUR, MIDCERVIC-OPEN
820.13	FX BASE FEMORAL NCK-OPEN
820.19	FX FEMUR INTRCAP NEC-OPN
820.20	TROCHANTERIC FX NOS-CLOS
820.21	INTERTROCHANTERIC FX-CL
820.22	SUBTROCHANTERIC FX-CLOSE
820.30	TROCHANTERIC FX NOS-OPEN
820.31	INTERTROCHANTERIC FX-OPN
820.32	SUBTROCHANTERIC FX-OPEN
820.8	FX NECK OF FEMUR NOS-CL
820.9	FX NECK OF FEMUR NOS-OPN
821.00	FX FEMUR NOS-CLOSED
821.01	FX FEMUR SHAFT-CLOSED
821.10	FX FEMUR NOS-OPEN
821.11	FX FEMUR SHAFT-OPEN

Table 5.14 Burns	
Code	Shortened Description
692.71	SUNBURN
692.76	2 ND DEGREE SUNBURN
692.77	3 RD DEGREE SUNBURN
692.82	DERMATITIS OTH RADIATION
782.0	SKIN SENSATION DISTURB
906.5	LATE EFF HEAD/NECK BURN
906.6	LATE EFF WRIST/HAND BURN
906.7	LATE EFF BURN EXTREM NEC
906.8	LATE EFFECT OF BURNS NEC
906.9	LATE EFFECT OF BURN NOS
910.0	ABRASION HEAD
910.1	ABRASION HEAD-INFECTED
911.0	ABRASION TRUNK
911.1	ABRASION TRUNK-INFECTED
912.0	ABRASION SHOULDER/ARM
912.1	ABRASION SHLDR/ARM-INFEC
913.0	ABRASION FOREARM
913.1	ABRASION FOREARM-INFECT
914.0	ABRASION HAND
914.1	ABRASION HAND-INFECTED
915.0	ABRASION FINGER
915.1	ABRASION FINGER-INFECTED
916.0	ABRASION HIP & LEG
916.1	ABRASION HIP/LEG-INFECT
917.0	ABRASION FOOT & TOE
917.1	ABRASION FOOT/TOE-INFEC
919.0	ABRASION NEC
919.1	ABRASION NEC-INFECTED
940.0	CHEMICAL BURN PERIOCLAR
940.1	BURN PERIOCLAR AREA NEC
940.2	ALKAL BURN CORNEA/CONJUN
940.3	ACID BURN CORNEA/CONJUNC
940.4	BURN CORNEA/CONJUNCT NEC
940.5	BURN W EYEBALL DESTRUCT
940.9	BURN EYE & ADNEXA NOS
941.00	BURN NOS HEAD-UNSPEC
941.01	BURN NOS EAR
941.02	BURN NOS EYE
941.03	BURN NOS LIP
941.04	BURN NOS CHIN
941.05	BURN NOS NOSE
941.06	BURN NOS SCALP

Table 5.14 Burns	
Code	Shortened Description
941.07	BURN NOS FACE NEC
941.08	BURN NOS NECK
941.09	BURN NOS HEAD-MULT
941.10	1ST DEG BURN HEAD NOS
941.11	1ST DEG BURN EAR
941.12	1ST DEG BURN EYE
941.13	1ST DEG BURN LIP
941.14	1ST DEG BURN CHIN
941.15	1ST DEG BURN NOSE
941.16	1ST DEG BURN SCALP
941.17	1ST DEG BURN FACE NEC
941.18	1ST DEG BURN NECK
941.19	1ST DEG BURN HEAD-MULT
941.20	2ND DEG BURN HEAD NOS
941.21	2ND DEG BURN EAR
941.22	2ND DEG BURN EYE
941.23	2ND DEG BURN LIP
941.24	2ND DEG BURN CHIN
941.25	2ND DEG BURN NOSE
941.26	2ND DEG BURN SCALP
941.27	2ND DEG BURN FACE NEC
941.28	2ND DEG BURN NECK
941.29	2ND DEG BURN HEAD-MULT
941.30	3RD DEG BURN HEAD NOS
941.31	3RD DEG BURN EAR
941.32	3RD DEG BURN EYE
941.33	3RD DEG BURN LIP
941.34	3RD DEG BURN CHIN
941.35	3RD DEG BURN NOSE
941.36	3RD DEG BURN SCALP
941.37	3RD DEG BURN FACE NEC
941.38	3RD DEG BURN NECK
941.39	3RD DEG BURN HEAD-MULT
941.40	DEEP 3 DEG BURN HEAD NOS
941.41	DEEP 3RD DEG BURN EAR
941.42	DEEP 3RD DEG BURN EYE
941.43	DEEP 3RD DEG BURN LIP
941.44	DEEP 3RD DEG BURN CHIN
941.45	DEEP 3RD DEG BURN NOSE
941.46	DEEP 3RD DEG BURN SCALP
941.47	DEEP 3RD BURN FACE NEC
941.48	DEEP 3RD DEG BURN NECK
941.49	DEEP 3 DEG BRN HEAD-MULT
941.50	3RD BURN W LOSS-HEAD NOS

Table 5.14 Burns	
Code	Shortened Description
941.51	3RD DEG BURN W LOSS-EAR
941.52	3RD DEG BURN W LOSS-EYE
941.53	3RD DEG BURN W LOSS-LIP
941.54	3RD DEG BURN W LOSS-CHIN
941.55	3RD DEG BURN W LOSS-NOSE
941.56	3RD DEG BRN W LOSS-SCALP
941.57	3RD BURN W LOSS-FACE NEC
941.58	3RD DEG BURN W LOSS-NECK
941.59	3RD BRN W LOSS-HEAD MULT
942.00	BURN NOS TRUNK-UNSPEC
942.01	BURN NOS BREAST
942.02	BURN NOS CHEST WALL
942.03	BURN NOS ABDOMINAL WALL
942.04	BURN NOS BACK
942.05	BURN NOS GENITALIA
942.09	BURN NOS TRUNK NEC
942.10	1ST DEG BURN TRUNK NOS
942.11	1ST DEG BURN BREAST
942.12	1ST DEG BURN CHEST WALL
942.13	1ST DEG BURN ABDOMN WALL
942.14	1ST DEG BURN BACK
942.15	1ST DEG BURN GENTALIA
942.19	1ST DEG BURN TRUNK NEC
942.20	2ND DEG BURN TRUNK NOS
942.21	2ND DEG BURN BREAST
942.22	2ND DEG BURN CHEST WALL
942.23	2ND DEG BURN ABDOMN WALL
942.24	2ND DEG BURN BACK
942.25	2ND DEG BURN GENITALIA
942.29	2ND DEG BURN TRUNK NEC
942.30	3RD DEG BURN TRUNK NOS
942.31	3RD DEG BURN BREAST
942.32	3RD DEG BURN CHEST WALL
942.33	3RD DEG BURN ABDOMN WALL
942.34	3RD DEG BURN BACK
942.35	3RD DEG BURN GENITALIA
942.39	3RD DEG BURN TRUNK NEC
942.40	DEEP 3RD BURN TRUNK NOS
942.41	DEEP 3RD DEG BURN BREAST
942.42	DEEP 3RD BURN CHEST WALL
942.43	DEEP 3RD BURN ABDOM WALL
942.44	DEEP 3RD DEG BURN BACK
942.45	DEEP 3RD BURN GENITALIA
942.49	DEEP 3RD BURN TRUNK NEC

Table 5.14 Burns	
Code	Shortened Description
942.50	3RD BRN W LOSS-TRUNK NOS
942.51	3RD BURN W LOSS-BREAST
942.52	3RD BRN W LOSS-CHEST WLL
942.53	3RD BRN W LOSS-ABDOM WLL
942.54	3RD DEG BURN W LOSS-BACK
942.55	3RD BRN W LOSS-GENITALIA
942.59	3RD BRN W LOSS-TRUNK NEC
943.00	BURN NOS ARM-UNSPEC
943.01	BURN NOS FOREARM
943.02	BURN NOS ELBOW
943.03	BURN NOS UPPER ARM
943.04	BURN NOS AXILLA
943.05	BURN NOS SHOULDER
943.06	BURN NOS SCAPULA
943.09	BURN NOS ARM-MULTIPLE
943.10	1ST DEG BURN ARM NOS
943.11	1ST DEG BURN FOREARM
943.12	1ST DEG BURN ELBOW
943.13	1ST DEG BURN UPPER ARM
943.14	1ST DEG BURN AXILLA
943.15	1ST DEG BURN SHOULDER
943.16	1ST DEG BURN SCAPULA
943.19	1ST DEG BURN ARM-MULT
943.20	2ND DEG BURN ARM NOS
943.21	2ND DEG BURN FOREARM
943.22	2ND DEG BURN ELBOW
943.23	2ND DEG BURN UPPER ARM
943.24	2ND DEG BURN AXILLA
943.25	2ND DEG BURN SHOULDER
943.26	2ND DEG BURN SCAPULA
943.29	2ND DEG BURN ARM-MULT
943.30	3RD DEG BURN ARM NOS
943.31	3RD DEG BURN FOREARM
943.32	3RD DEG BURN ELBOW
943.33	3RD DEG BURN UPPER ARM
943.34	3RD DEG BURN AXILLA
943.35	3RD DEG BURN SHOULDER
943.36	3RD DEG BURN SCAPULA
943.39	3RD DEG BURN ARM-MULT
943.40	DEEP 3 DEG BURN ARM NOS
943.41	DEEP 3 DEG BURN FOREARM
943.42	DEEP 3 DEG BURN ELBOW
943.43	DEEP 3 DEG BRN UPPER ARM
943.44	DEEP 3 DEG BURN AXILLA

Table 5.14 Burns	
Code	Shortened Description
943.45	DEEP 3 DEG BURN SHOULDER
943.46	DEEP 3 DEG BURN SCAPULA
943.49	DEEP 3 DEG BURN ARM-MULT
943.50	3RD BURN W LOSS-ARM NOS
943.51	3RD BURN W LOSS-FOREARM
943.52	3RD BURN W LOSS-ELBOW
943.53	3RD BRN W LOSS-UPPER ARM
943.54	3RD BURN W LOSS-AXILLA
943.55	3RD BURN W LOSS-SHOULDER
943.56	3RD BURN W LOSS-SCAPULA
943.59	3RD BURN W LOSS-ARM MULT
944.00	BURN NOS HAND-UNSPEC
944.01	BURN NOS FINGER
944.02	BURN NOS THUMB
944.03	BURN NOS MULT FINGERS
944.04	BURN NOS FINGER W THUMB
944.05	BURN NOS PALM
944.06	BURN NOS BACK OF HAND
944.07	BURN NOS WRIST
944.08	BURN NOS HAND-MULTIPLE
944.10	1ST DEG BURN HAND NOS
944.11	1ST DEG BURN FINGER
944.12	1ST DEG BURN THUMB
944.13	1ST DEG BURN MULT FINGER
944.14	1 DEG BURN FINGR W THUMB
944.15	1ST DEG BURN PALM
944.16	1 DEG BURN BACK OF HAND
944.17	1ST DEG BURN WRIST
944.18	1ST DEG BURN HAND-MULT
944.20	2ND DEG BURN HAND NOS
944.21	2ND DEG BURN FINGER
944.22	2ND DEG BURN THUMB
944.23	2ND DEG BURN MULT FINGER
944.24	2 DEG BURN FINGR W THUMB
944.25	2ND DEG BURN PALM
944.26	2 DEG BURN BACK OF HAND
944.27	2ND DEG BURN WRIST
944.28	2ND DEG BURN HAND-MULT
944.30	3RD DEG BURN HAND NOS
944.31	3RD DEG BURN FINGER
944.32	3RD DEG BURN THUMB
944.33	3RD DEG BURN MULT FINGER
944.34	3 DEG BURN FINGR W THUMB
944.35	3RD DEG BURN PALM

Table 5.14 Burns	
Code	Shortened Description
944.36	3 DEG BURN BACK OF HAND
944.37	3RD DEG BURN WRIST
944.38	3RD DEG BURN HAND-MULT
944.40	DEEP 3 DEG BRN HAND NOS
944.41	DEEP 3 DEG BURN FINGER
944.42	DEEP 3 DEG BURN THUMB
944.43	DEEP 3RD BRN MULT FINGER
944.44	DEEP 3RD BRN FNGR W THMB
944.45	DEEP 3 DEG BURN PALM
944.46	DEEP 3RD BRN BACK OF HND
944.47	DEEP 3 DEG BURN WRIST
944.48	DEEP 3 DEG BRN HAND-MULT
944.50	3RD BRN W LOSS-HAND NOS
944.51	3RD BURN W LOSS-FINGER
944.52	3RD BURN W LOSS-THUMB
944.53	3RD BRN W LOSS-MULT FNGR
944.54	3RD BRN W LOSS-FNGR/THMB
944.55	3RD BURN W LOSS-PALM
944.56	3RD BRN W LOSS-BK OF HND
944.57	3RD BURN W LOSS-WRIST
944.58	3RD BRN W LOSS HAND-MULT
945.00	BURN NOS LEG-UNSPEC
945.01	BURN NOS TOE
945.02	BURN NOS FOOT
945.03	BURN NOS ANKLE
945.04	BURN NOS LOWER LEG
945.05	BURN NOS KNEE
945.06	BURN NOS THIGH
945.09	BURN NOS LEG-MULTIPLE
945.10	1ST DEG BURN LEG NOS
945.11	1ST DEG BURN TOE
945.12	1ST DEG BURN FOOT
945.13	1ST DEG BURN ANKLE
945.14	1ST DEG BURN LOWER LEG
945.15	1ST DEG BURN KNEE
945.16	1ST DEG BURN THIGH
945.19	1ST DEG BURN LEG-MULT
945.20	2ND DEG BURN LEG NOS
945.21	2ND DEG BURN TOE
945.22	2ND DEG BURN FOOT
945.23	2ND DEG BURN ANKLE
945.24	2ND DEG BURN LOWER LEG
945.25	2ND DEG BURN KNEE
945.26	2ND DEG BURN THIGH

Table 5.14 Burns	
Code	Shortened Description
945.29	2ND DEG BURN LEG-MULT
945.30	3RD DEG BURN LEG NOS
945.31	3RD DEG BURN TOE
945.32	3RD DEG BURN FOOT
945.33	3RD DEG BURN ANKLE
945.34	3RD DEG BURN LOW LEG
945.35	3RD DEG BURN KNEE
945.36	3RD DEG BURN THIGH
945.39	3RD DEG BURN LEG-MULT
945.40	DEEP 3RD DEG BRN LEG NOS
945.41	DEEP 3RD DEG BURN TOE
945.42	DEEP 3RD DEG BURN FOOT
945.43	DEEP 3RD DEG BURN ANKLE
945.44	DEEP 3RD DEG BRN LOW LEG
945.45	DEEP 3RD DEG BURN KNEE
945.46	DEEP 3RD DEG BURN THIGH
945.49	DEEP 3 DEG BURN LEG-MULT
945.50	3 DEG BRN W LOSS-LEG NOS
945.51	3 DEG BURN W LOSS-TOE
945.52	3 DEG BURN W LOSS-FOOT
945.53	3 DEG BURN W LOSS-ANKLE
945.54	3 DEG BRN W LOSS-LOW LEG
945.55	3 DEG BURN W LOSS-KNEE
945.56	3 DEG BURN W LOSS-THIGH
945.59	3 DEG BRN W LOSS LEG-MLT
946.0	BURN NOS MULTIPLE SITE
946.1	1ST DEG BURN MULT SITE
946.2	2ND DEG BURN MULT SITE
946.3	3RD DEG BURN MULT SITE
946.4	DEEP 3 DEG BRN MULT SITE
946.5	3 RD BRN W LOSS-MULT SITE
947.8	BURN INTERNAL ORGAN NEC
947.9	BURN INTERNAL ORGAN NOS
948.00	BDY BRN < 10%/3D DEG NOS
948.10	10-19% BDY BRN/3 DEG NOS
948.11	10-19% BDY BRN/10-19% 3D
948.20	20-29% BDY BRN/3 DEG NOS
948.21	20-29% BDY BRN/10-19% 3D
948.22	20-29% BDY BRN/20-29% 3D
948.30	30-39% BDY BRN/3 DEG NOS
948.31	30-39% BDY BRN/10-19% 3D
948.32	30-39% BDY BRN/20-29% 3D
948.33	30-39% BDY BRN/30-39% 3D
948.40	40-49% BDY BRN/3 DEG NOS

Table 5.14 Burns	
Code	Shortened Description
948.41	40-49% BDY BRN/10-19% 3D
948.42	40-49% BDY BRN/20-29% 3D
948.43	40-49% BDY BRN/30-39% 3D
948.44	40-49% BDY BRN/40-49% 3D
948.50	50-59% BDY BRN/3 DEG NOS
948.51	50-59% BDY BRN/10-19% 3D
948.52	50-59% BDY BRN/20-29% 3D
948.53	50-59% BDY BRN/30-39% 3D
948.54	50-59% BDY BRN/40-49% 3D
948.55	50-59% BDY BRN/50-59% 3D
948.60	60-69% BDY BRN/3 DEG NOS
948.61	60-69% BDY BRN/10-19% 3D
948.62	60-69% BDY BRN/20-29% 3D
948.63	60-69% BDY BRN/30-39% 3D
948.64	60-69% BDY BRN/40-49% 3D
948.65	60-69% BDY BRN/50-59% 3D
948.66	60-69% BDY BRN/60-69% 3D
948.70	70-79% BDY BRN/3 DEG NOS
948.71	70-79% BDY BRN/10-19% 3D
948.72	70-79% BDY BRN/20-29% 3D
948.73	70-79% BDY BRN/30-39% 3D
948.74	70-79% BDY BRN/40-49% 3D
948.75	70-79% BDY BRN/50-59% 3D
948.76	70-79% BDY BRN/60-69% 3D
948.77	70-79% BDY BRN/70-79% 3D
948.80	80-89% BDY BRN/3 DEG NOS
948.81	80-89% BDY BRN/10-19% 3D
948.82	80-89% BDY BRN/20-29% 3D
948.83	80-89% BDY BRN/30-39% 3D
948.84	80-89% BDY BRN/40-49% 3D
948.85	80-89% BDY BRN/50-59% 3D
948.86	80-89% BDY BRN/60-69% 3D
948.87	80-89% BDY BRN/70-79% 3D
948.88	80-89% BDY BRN/80-89% 3D
948.90	90% + BDY BRN/3 DEG NOS
948.91	90% + BDY BRN/10-19% 3RD
948.92	90% + BDY BRN/20-29% 3RD
948.93	90% + BDY BRN/30-39% 3RD
948.94	90% + BDY BRN/40-49% 3RD
948.95	90% + BDY BRN/50-59% 3RD
948.96	90% + BDY BRN/60-69% 3RD
948.97	90% + BDY BRN/70-79% 3RD
948.98	90% + BDY BRN/80-89% 3RD
948.99	90% + BDY BRN/90% + 3 RD

Table 5.14 Burns	
Code	Shortened Description
949.0	BURN NOS
949.1	1ST DEGREE BURN NOS
949.2	2ND DEGREE BURN NOS
949.3	3RD DEGREE BURN NOS
949.4	DEEP 3RD DEG BURN NOS
949.5	3RD BURN W LOSS-SITE NOS

Last Updated: Version 3.2

Table 5.15 Transplant	
Code	Shortened Description
996.80	COMP ORGAN TRANSPLNT NOS
996.81	COMPL KIDNEY TRANSPLANT
996.82	COMPL LIVER TRANSPLANT
996.83	COMPL HEART TRANSPLANT
996.84	COMPL LUNG TRANSPLANT
996.85	COMPL MARROW TRANSPLANT
996.86	COMPL PANCREAS TRANSPLNT
996.87	COMP INTESTINE TRANSPLNT
996.89	COMP OTH ORGAN TRANSPLNT
V42.0	KIDNEY TRANSPLANT STATUS
V42.1	HEART TRANSPLANT STATUS
V42.2	HEART VALVE TRANSPLANT
V42.3	SKIN TRANSPLANT STATUS
V42.4	BONE TRANSPLANT STATUS
V42.5	CORNEA TRANSPLANT STATUS
V42.6	LUNG TRANSPLANT STATUS
V42.7	LIVER TRANSPLANT STATUS
V42.81	TRNSPL STATUS-BNE MARROW
V42.82	TRNSPL STS-PERIP STM CELL
V42.83	TRNSPL STATUS-PANCREAS
V42.84	TRNSPL STATUS-INTESTINES
V42.89	TRNSPL STATUS ORGAN NEC
V42.9	TRANSPLANT STATUS NOS

Last Updated: Version 3.2

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.21	TRANSAB PROCTOSIGMOIDOSC
48.22	PROCTOSIGMOIDOSC THRU ST
48.23	RIGID PROCTOSIGMOIDOSCPY

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
48.24	CLOSED RECTAL BIOPSY
48.25	OPEN RECTAL BIOPSY
48.26	PERIRECTAL TISSUE BIOPSY
48.29	RECT/PERIRECT DX OP NEC
48.31	RAD ELECTROCOAG-RECT LES
48.32	ELECTROCOAG RECT LES NEC
48.33	LASER DESTRUC RECTAL LES
48.34	CRYOSURG DESTR RECT LES
48.35	LOCAL EXCIS RECTAL LES
48.36	POLYPECTOMY OF RECTUM
48.41	SOAVE SUBMUC RECT RESECT
48.42	LAP PULL-THRU RES RECTUM
48.43	OPN PULL-THRU RES RECTUM
48.49	PULL-THRU RECT RESEC NEC
48.50	ABDPERNEAL RES RECTM NOS
48.51	LAP ABDPERNEAL RESC REC
48.52	OPN ABDPERNEAL RESC REC
48.59	ABDPERNEAL RESC RECT NEC
48.61	TRANS SAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC
48.71	SUTURE OF RECTAL LACER
48.72	CLOSURE OF PROCTOSTOMY
48.73	CLOSE RECTAL FIST NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
48.79	REPAIR OF RECTUM NEC
48.81	PERIRECTAL INCISION
48.82	PERIRECTAL EXCISION
48.91	INCIS RECTAL STRICTURE
48.92	ANORECTAL MYOMECTOMY
48.93	REPAIR PERIRECT FISTULA
48.99	RECTAL PERIRECT OP NEC
49.01	INCIS PERIANAL ABSCESS
49.02	PERIANAL INCISION NEC
49.03	EXCIS PERIANAL SKIN TAG
49.04	PERIANAL EXCISION NEC
49.11	ANAL FISTULOTOMY
49.12	ANAL FISTULECTOMY
49.39	OTHER DESTRUC ANUS LES

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
49.44	HEMORRHOID CRYOTHERAPY
49.45	HEMORRHOID LIGATION
49.46	HEMORRHOIDECTOMY
49.49	HEMORRHOID PROCEDURE NEC
49.51	LEFT LAT SPHINCTEROTOMY
49.52	POST SPHINCTEROTOMY
49.59	ANAL SPHINCTEROTOMY NEC
49.6	EXCISION OF ANUS
49.71	SUTURE ANAL LACERATION
49.72	ANAL CERCLAGE
49.73	CLOSURE OF ANAL FISTULA
49.74	GRACILIS MUSC TRANSPLAN
49.75	IMPL OR REV ART ANAL SPH
49.76	REMOV ART ANAL SPHINCTER
49.79	ANAL SPHINCT REPAIR NEC
49.91	INCISION OF ANAL SEPTUM
49.92	INSERT SUBQ ANAL STIMUL
49.93	ANAL INCISION NEC
49.94	REDUCTION ANAL PROLAPSE
49.95	CONTROL ANAL HEMORRHAGE
49.99	ANAL OPERATION NEC
55.01	NEPHROTOMY
55.02	NEPHROSTOMY
55.03	PERCU NEPHROSTM W/O FRAG
55.04	PERCU NEPHROSTMY W FRAG
55.11	PYELOTOMY
55.12	PYELOSTOMY
55.31	RENAL LES MARSUPIALIZAT
55.32	OPN ABLTN RENAL LES/TISS
55.33	PERC ABLTN RENL LES/TISS
55.34	LAP ABLTN RENAL LES/TISS
55.35	ABLTN RENAL LES/TISS NEC
55.39	LOC DESTR RENAL LES NEC
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
55.61	RENAL AUTOTRANSPLANT
55.69	KIDNEY TRANSPLANT NEC
55.7	NEPHROPEXY
55.81	SUTURE KIDNEY LACERATION
55.82	CLOSE NEPHROST & PYELOST
55.83	CLOSE RENAL FISTULA NEC

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
55.84	REDUCE RENAL PEDICL TORS
55.85	SYMPHYSIOTOMY
55.86	RENAL ANASTOMOSIS
55.87	CORRECT URETEROPELV JUNC
55.89	RENAL REPAIR NEC
55.91	RENAL DECAPSULATION
55.95	LOCAL RENAL PERFUSION
55.96	RENAL INJECTION NEC
55.97	IMPLANT MECHANIC KIDNEY
55.98	REMOV MECHANICAL KIDNEY
55.99	RENAL OPERATION NEC
56.0	TU REMOV URETER OBSTRUCT
56.1	URETERAL MEATOTOMY
56.34	OPEN URETERAL BIOPSY
56.40	URETERECTOMY NOS
56.41	PARTIAL URETERECTOMY
56.42	TOTAL URETERECTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
56.81	INTRALUM URETE ADHESIOLY
56.82	SUTURE URETERAL LACERAT
56.83	URETEROSTOMY CLOSURE
56.84	CLOSE URETER FISTULA NEC
56.85	URETEROPEXY
56.86	REMOVE URETERAL LIGATURE
56.89	REPAIR OF URETER NEC
56.91	URETERAL MEATUS DILATION
56.92	IMPLANT URETERAL STIMUL
56.93	REPLACE URETERAL STIMUL
56.94	REMOVE URETERAL STIMULAT
56.95	LIGATION OF URETER
56.99	URETERAL OPERATION NEC
57.0	TU BLADDER CLEARANCE
57.12	CYSTOTOMY & ADHESIOLYSIS
57.17	PERCUTANEOUS CYSTOSTOMY
57.18	OTHER SUPRAPU CYSTOSTOMY
57.19	CYSTOTOMY NEC
57.21	VESICOSTOMY
57.22	REVISE CLO VESICOSTOMY
57.34	OPEN BLADDER BIOPSY
57.39	BLADDER DIAGNOS PROC NEC
57.41	TU ADHESIOLYSIS BLADDER
57.49	TU DESTRUC BLADD LES NEC

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
57.59	BLADDER LES DESTRUCT NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
57.91	BLADDER SPHINCTEROTOMY
57.92	BLADDER NECK DILATION
57.93	CONTROL BLADD HEMORRHAGE
57.96	IMPLANT BLADDER STIMULAT
57.97	REPLACE BLADDER STIMULAT
57.98	REMOVE BLADDER STIMULAT
57.99	BLADDER OPERATION NEC
58.0	URETHROTOMY
58.1	URETHRAL MEATOTOMY
58.31	ENDOSC DESTR URETHRA LES
58.39	OTHER DESTRU URETHRA LES
58.41	SUTURE URETHRAL LACERAT
58.42	URETHROSTOMY CLOSURE
58.43	CLOSE URETH FISTULA NEC
58.44	URETHRAL REANASTOMOSIS
58.45	HYPO-EPISPADIUS REPAIR
58.46	URETH RECONSTRUCTION NEC
58.47	URETHRAL MEATOPLASTY
58.49	URETHRAL REPAIR NEC
58.5	URETH STRICTURE RELEASE
58.91	PERIURETHRAL INCISION
58.92	PERIURETHRAL EXCISION
58.93	IMPLT ARTF URIN SPHINCT
58.99	URETH/PERIURETH OP NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.03	LAP LYS PERIREN/URET ADH
59.09	PERIREN/URETER INCIS NEC
59.11	OTH LYS PERIVES ADHESIO
59.12	LAP LYS PERIVESURETH ADH
59.19	PERIVESICAL INCISION NEC
59.3	URETHROVES JUNCT PLICAT

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
59.4	SUPRAPUBIC SLING OP
59.5	RETROPUBIC URETH SUSPENS
59.6	PARAURETHRAL SUSPENSION
59.71	LEVATOR MUSC SUSPENSION
59.79	URIN INCONTIN REPAIR NEC
59.91	PERIREN/VESICLE EXCISION
59.92	PERIREN/VESICLE OP NEC
60.0	INCISION OF PROSTATE
60.12	OPEN PROSTATIC BIOPSY
60.14	OPEN SEMINAL VESICLES BX
60.15	PERIPROSTATIC BIOPSY
60.18	PROSTATIC DX PROCED NEC
60.19	SEMIN VES DX PROCED NEC
60.21	TRANSURETH PROSTATECTOMY
60.29	OTH TRANSURETH PROSTATEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY
60.61	LOS EXCIS PROSTATIC LES
60.62	PERINEAL PROSTATECTOMY
60.69	PROSTATECTOMY NEC
60.71	PERCUT SEMIN VES ASPIRAT
60.72	SEMINAL VESICLE INCISION
60.73	SEMINAL VESICLE EXCISION
60.79	SEMINAL VESICLE OP NEC
60.81	PERIPROSTATIC INCISION
60.82	PERIPROSTATIC EXCISION
60.93	REPAIR OF PROSTATE
60.94	CONTROL PROSTATE HEMORR
60.95	TRANS BAL DIL PROS URETH
60.96	TU DESTR PROSTATE BY MT
60.97	OTH TU DESTR PROS - RT
60.99	PROSTATIC OPERATION NEC
61.0	SCROTUM & TUNICA I & D
61.2	EXCISION OF HYDROCELE
61.3	SCROTAL LES DESTRUCTION
61.41	SUTURE SCROTAL LACERAT
61.42	SCROTAL FISTULA REPAIR
61.49	SCROTUM/TUNIC REPAIR NEC
61.91	PERCUT TUNICA ASPIRATION
61.92	EXCISION TUNICA LES NEC
61.99	SCROTUM & TUNICA OP NEC
62.0	INCISION OF TESTES
62.12	OPEN TESTICULAR BIOPSY
62.19	TESTES DX PROCEDURE NEC

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
62.2	TESTICULAR LES DESTRUCT
62.3	UNILATERAL ORCHIECTOMY
62.41	REMOVE BOTH TESTES
62.42	REMOVE SOLITARY TESTIS
62.5	ORCHIOPEXY
62.61	SUTURE TESTICULAR LACER
62.69	TESTICULAR REPAIR NEC
62.7	INSERT TESTICULAR PROSTH
62.99	TESTICULAR OPERATION NEC
63.01	SPERMATIC CORD/VAS BIOPS
63.09	SPERMAT CORD/VAS DX NEC
63.1	EXC SPERMATIC VARICOCELE
63.2	EXCISE EPIDIDYMIS CYST
63.3	EXCISE CORD/EPID LES NEC
63.4	EPIDIDYMECTOMY
63.51	SUTURE CORD & EPID LACER
63.52	REDUCTION TORSION TESTES
63.53	TRANSPLANT SPERMAT CORD
63.59	CORD & EPIDID REPAIR NEC
63.6	VASOTOMY
63.70	MALE STERILIZATION NOS
63.71	LIGATION OF VAS DEFERENS
63.72	SPERMATIC CORD LIGATION
63.73	VASECTOMY
63.81	SUTURE VAS & EPIDID LAC
63.82	POSTOP VAS RECONSTRUCT
63.83	EPIDIDYMOVASOSTOMY
63.84	REMOVAL VAS LIGATURE
63.85	REMOV VAS DEFERENS VALVE
63.89	VAS & EPIDIDY REPAIR NEC
63.91	SPERMATOCELE ASPIRATION
63.92	EPIDIDYMYOTOMY
63.93	SPERMATIC CORD INCISION
63.94	SPERM CORD ADHESIOLYSIS
63.95	INSERT VALVE IN VAS DEF
63.99	CORD/EPID/VAS OPS NEC
64.0	CIRCUMCISION
64.11	PENILE BIOPSY
64.19	PENILE DIAGNOST PROC NEC
64.2	LOCAL EXCIS PENILE LES
64.3	AMPUTATION OF PENIS
64.41	SUTURE PENILE LACERATION
64.42	RELEASE OF CHORDEE
64.43	CONSTRUCTION OF PENIS
64.44	RECONSTRUCTION OF PENIS

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
64.45	REPLANTATION OF PENIS
64.49	PENILE REPAIR NEC
64.5	SEX TRANSFORMAT OP NEC
64.91	DORSAL/LAT SLIT PREPUCE
64.92	INCISION OF PENIS
64.93	DIVISION OF PENILE ADHES
64.94	FIT EXT PENILE PROSTHES
64.95	INS NONINFL PENIS PROSTH
64.96	REMOVE INT PENILE PROSTH
64.97	INS INFLATE PENIS PROSTH
64.98	PENILE OPERATION NEC
64.99	MALE GENITAL OP NEC
65.01	LAPAROSCOPIC OOPHOROTOMY
65.09	OTHER OOPHOROTOMY
65.11	OVARIAN ASPIRAT BIOPSY
65.12	OVARIAN BIOPSY NEC
65.13	LAP BIOPSY OF OVARY
65.14	OTH LAP DX PROC OVARIES
65.19	OVARIAN DX PROCEDURE NEC
65.21	OVARIAN CYST MARSUPIALIZ
65.22	OVARIAN WEDGE RESECTION
65.23	LAP MARSUP OVARIAN CYST
65.24	LAP WEDGE RESECT OVARY
65.25	OTH LAP LOC EXC DEST OVA
65.29	LOCAL DESTR OVA LES NEC
65.31	LAP UNILAT OOPHORECTOMY
65.39	OTH UNILAT OOPHORECTOMY
65.41	LAP UNI SALPINGO-OOPHOR
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.53	LAP REMOVE BOTH OVARIES
65.54	LAP REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
65.63	LAP REMOVE OVARIES/TUBES
65.64	LAP REMOVE REM OVA/TUBE
65.71	OTH SIMPLE SUTURE OVARY
65.72	OTH REIMPLANT OF OVARY
65.73	OTH SALPINGO-OOPHOROPLAS
65.74	LAP SIMPLE SUTURE OVARY
65.75	LAP REIMPLANT OF OVARY
65.76	LAP SALPINGO-OOPHOROPLAS
65.79	REPAIR OF OVARY NEC
65.81	LAP ADHESIOLYS OVA/TUBE

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
65.89	ADHESIOLYSIS OVARY/TUBE
65.91	ASPIRATION OF OVARY
65.92	TRANSPLANTATION OF OVARY
65.93	MANUAL RUPT OVARIAN CYST
65.94	OVARIAN DENERVATION
65.95	OVARIAN TORSION RELEASE
65.99	OVARIAN OPERATION NEC
66.01	SALPINGOTOMY
66.02	SALPINGOSTOMY
66.11	FALLOPIAN TUBE BIOPSY
66.19	FALLOP TUBE DX PROC NEC
66.21	BILAT ENDOSC CRUSH TUBE
66.22	BILAT ENDOSC DIVIS TUBE
66.29	BILAT ENDOSC OCC TUBE NEC
66.31	BILAT TUBAL CRUSHING NEC
66.32	BILAT TUBAL DIVISION NEC
66.39	BILAT TUBAL DESTRUCT NEC
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
66.71	SIMPL SUTURE FALLOP TUBE
66.72	SALPINGO-OOPHOROSTOMY
66.73	SALPINGO-SALPINGOSTOMY
66.74	SALPINGO-UTEROSTOMY
66.79	FALLOP TUBE REPAIR NEC
66.8	FALLOPIAN TUBE INSUFFLAT
66.91	FALLOPIAN TUBE ASPIRAT
66.92	UNILAT FALLOP TUBE DESTR
66.93	IMPL FALLOP TUBE PROSTH
66.94	REMOV FALLOP TUBE PROSTH
66.95	BLOW THERAPEUT INTO TUBE
66.96	FALLOPIAN TUBE DILATION
66.97	BURY FIMBRIAE IN UTERUS
66.99	FALLOPIAN TUBE OP NEC
67.0	CERVICAL CANAL DILATION
67.11	ENDOCERVICAL BIOPSY
67.12	CERVICAL BIOPSY NEC
67.19	CERVICAL DX PROCEDUR NEC
67.2	CONIZATION OF CERVIX
67.31	CERVICAL CYST MARSUPIAL
67.32	CERVICAL LES CAUTERIZAT

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
67.33	CERVICAL LES CRYOTHERAPY
67.39	CERVICAL LES DESTRUC NEC
67.4	AMPUTATION OF CERVIX
67.51	TRANSAB CERCLAGE CERVIX
67.59	OTH REP INT CERVICAL OS
67.61	SUTURE CERVICAL LACERAT
67.62	CERVICAL FISTULA REPAIR
67.69	CERVICAL REPAIR NEC
68.0	HYSTEROTOMY
68.11	DIGITAL EXAM OF UTERUS
68.12	HYSTEROSCOPY
68.13	OPEN UTERINE BIOPSY
68.14	OPEN UTERINE LIGAMENT BX
68.15	CLOS UTERINE LIGAMENT BX
68.16	CLOSED UTERINE BIOPSY
68.19	UTERUS/ADNEX DX PROC NEC
68.21	ENDOMET SYNECHIAE DIVIS
68.22	INCISION UTERINE SEPTUM
68.23	ENDOMETRIAL ABLATION
68.29	UTERINE LES DESTRUCT NEC
68.31	LAP SCERVIC HYSTERECTOMY
68.39	SUBTOTL ABD HYST NEC/NOS
68.41	LAP TOTAL ABDOMINAL HYST
68.49	TOTAL ABD HYST NEC/NOS
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.61	LAP RADICAL ABDOMNL HYST
68.69	RADICAL ABD HYST NEC/NOS
68.71	LAP RADICAL VAGINAL HYST
68.79	RADICAL VAG HYST NEC/NOS
68.8	PELVIC EVISCERATION
68.9	HYSTERECTOMY NEC/NOS
69.01	D & C FOR PREG TERMINAT
69.02	D & C POST DELIVERY
69.09	D & C NEC
69.19	DESTRUC UTER SUPPORT NEC
69.21	INTERPOSIT OP UTERIN LIG
69.22	UTERINE SUSPENSION NEC
69.23	VAG REPAIR INVERS UTERUS
69.29	UTERUS/ADNEXA REPAIR NEC
69.3	PARACERV UTERINE DENERV
69.41	SUTURE UTERINE LACERAT
69.42	CLOSURE UTERINE FISTULA
69.49	UTERINE REPAIR NEC
69.51	ASPIRAT CURET-PREG TERMI

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
69.52	ASPIRAT CURET-POST DELIV
69.59	ASPIR CURETT UTERUS NEC
69.6	MENSTRUAL EXTRACTION
69.7	INSERTION OF IUD
69.91	INSERT UTERINE DEVICE
69.92	ARTIFICIAL INSEMINATION
69.93	INSERTION OF LAMINARIA
69.94	MAN REPLACE INVERT UTER
69.95	INCISION OF CERVIX
69.96	REMOVE CERVICAL CERCLAGE
69.97	REMOVE PENETRAT CERV FB
69.98	UTERINE SUPPORT OP NEC
69.99	UTERINE OPERATION NEC
70.0	CULDOCENTESIS
70.11	HYMENOTOMY
70.12	CULDOTOMY
70.13	INTRALUM VAG ADHESIOLYS
70.14	VAGINOTOMY NEC
70.21	VAGINOSCOPY
70.22	CULDOSCOPY
70.23	CUL-DE-SAC BIOPSY
70.24	VAGINAL BIOPSY
70.29	VAGIN/CUL-DE-SAC DX NEC
70.31	HYMENECTOMY
70.32	EXCIS CUL-DE-SAC LESION
70.33	EXCISION VAGINAL LESION
70.4	VAGINAL OBLITERATION
70.50	CYSTOCEL/RECTOCEL REPAIR
70.51	CYSTOCELE REPAIR
70.52	RECTOCELE REPAIR
70.53	CYSTO & RECTO W GRF/PROS
70.54	REP CYSTOCEL W GRFT/PROS
70.55	REP RECTOCELE W GRF/PROS
70.61	VAGINAL CONSTRUCTION
70.62	VAGINAL RECONSTRUCTION
70.63	VAGINAL CONST W GRF/PROS
70.64	VAG RECONST W GRFT/PROS
70.71	SUTURE VAGINA LACERATION
70.72	REPAIR COLOVAGIN FISTULA
70.73	REPAIR RECTOVAG FISTULA
70.74	REP VAGINOENT FISTUL NEC
70.75	REPAIR VAG FISTULA NEC
70.76	HYMENORRHAPHY
70.77	VAGINAL SUSPENS & FIXAT
70.78	VAG SUSP/FIX W GRFT/PROS

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
70.79	VAGINAL REPAIR NEC
70.8	VAGINAL VAULT OBLITERAT
70.91	VAGINAL OPERATION NEC
70.92	CUL-DE-SAC OPERATION NEC
70.93	CUL-DE-SAC GRF/PROS NEC
70.94	INSERT BIOLOGICAL GRAFT
70.95	INSERT SYNTH GRAFT/PROST
71.01	VULVAR ADHESIOLYSIS
71.09	INCIS VULVA/PERINEUM NEC
71.11	VULVAR BIOPSY
71.19	VULVAR DIAGNOS PROC NEC
71.21	PERCUTAN BARTHOLIN ASPIR
71.22	INCISE BARTHOLIN'S GLAND
71.23	BARTHOLIN GLAND MARSUP
71.24	DESTRUC BARTHOLIN GLAND
71.29	BARTHOLIN'S GLAND OP NEC
71.3	LOCAL VULVAR EXCIS NEC
71.4	OPERATIONS ON CLITORIS
71.5	RADICAL VULVECTOMY
71.61	UNILATERAL VULVECTOMY
71.62	BILATERAL VULVECTOMY
71.71	SUTURE VULVAR LACERATION
71.72	REPAIR VULVAR FISTULA
71.79	VULVAR/PERIN REPAIR NEC
71.8	OTHER VULVAR OPERATIONS
71.9	OTHER FEMALE GENITAL OPS

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Table 5.17 Intracranial Neurosurgery	
Code	Shortened Description
01.21	CRANIAL SINUS I & D
01.23	REOPEN CRANIOTOMY SITE
01.24	OTHER CRANIOTOMY
01.25	OTHER CRANIECTOMY
01.31	INCISE CEREBRAL MENINGES
01.32	LOBOTOMY & TRACTOTOMY
01.39	OTHER BRAIN INCISION
01.41	THALAMUS OPERATIONS
01.42	GLOBUS PALLIDUS OPS
01.51	EX CEREB MENINGEAL LES
01.52	HEMISPHERECTOMY
01.53	BRAIN LOBECTOMY
01.59	OTHER BRAIN EXCISION

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Table 5.19 General Surgery	
Code	Shortened Description
17.31	LAP MUL SEG RES LG INTES
17.32	LAPAROSCOPIC CECECTOMY
17.33	LAP RIGHT HEMICOLECTOMY
17.34	LAP RES TRANSVERSE COLON
17.35	LAP LEFT HEMICOLECTOMY
17.36	LAP SIGMOIDECTOMY
17.39	LAP PT EX LRG INTEST NEC
32.39	OTH SEG LUNG RESECT NOS
32.49	LOBECTOMY OF LUNG NEC
32.59	OTHER PNEUMONECTOMY NOS
34.51	DECORTICATION OF LUNG
34.59	OTHER PLEURAL EXCISION
34.81	EXCISE DIAPHRAGM LESION
34.82	SUTURE DIAPHRAGM LACERAT
34.83	CLOSE DIAPHRAGM FISTULA
34.84	OTHER DIAPHRAGM REPAIR
34.89	DIAPHRAGM OPERATION NEC
41.5	TOTAL SPLENECTOMY
42.01	ESOPHAGEAL WEB INCISION
42.09	ESOPHAGEAL INCISION NEC
42.10	ESOPHAGOSTOMY NOS
42.11	CERVICAL ESOPHAGOSTOMY
42.12	ESOPH POUCH EXTERIORIZAT
42.19	EXT FISTULIZAT ESOPH NEC
42.40	ESOPHAGECTOMY NOS
42.41	PARTIAL ESOPHAGECTOMY
42.42	TOTAL ESOPHAGECTOMY
42.51	THORAC ESOPHAGUESOPHAGOS
42.52	THORAC ESOPHAGOGASTROST
42.53	THORAC SM BOWEL INTERPOS
42.54	THORAC ESOPHAGOENTER NEC
42.55	THORAC LG BOWEL INTERPOS
42.56	THORAC ESOPHAGOCOLOS NEC
42.58	THORAC INTERPOSITION NEC
42.59	THORAC ESOPHAG ANAST NEC
42.61	STERN ESOPHAGUESOPHAGOST
42.62	STERN ESOPHAGOGASTROSTOM
42.63	STERN SM BOWEL INTERPOS
42.64	STERN ESOPHAGOENTER NEC

Table 5.19 General Surgery	
Code	Shortened Description
42.65	STERN LG BOWEL INTERPOS
42.66	STERN ESOPHAGOCOLOS NEC
42.68	STERN INTERPOSITION NEC
42.69	STERN ESOPHAG ANAST NEC
42.82	SUTURE ESOPHAGEAL LACER
42.83	ESOPHAGOSTOMY CLOSURE
42.84	ESOPH FISTULA REPAIR NEC
42.85	ESOPHAG STRICTURE REPAIR
42.86	PROD SUBQ TUNNEL NO ANAS
42.87	ESOPHAGEAL GRAFT NEC
42.89	ESOPHAGEAL REPAIR NEC
43.5	PROXIMAL GASTRECTOMY
43.6	DISTAL GASTRECTOMY
43.7	PART GASTREC W JEJ ANAST
43.81	PART GAST W JEJ TRANSPOS
43.89	PARTIAL GASTRECTOMY NEC
43.91	TOT GAST W INTES INTERPO
43.99	TOTAL GASTRECTOMY NEC
44.00	VAGOTOMY NOS
44.01	TRUNCAL VAGOTOMY
44.02	HIGHLY SELECT VAGOTOMY
44.03	SELECTIVE VAGOTOMY NEC
44.21	DILATE PYLORUS, INCISION
44.29	OTHER PYLOROPLASTY
44.31	HIGH GASTRIC BYPASS
44.39	GASTROENTEROSTOMY NEC
44.40	SUTURE PEPTIC ULCER NOS
44.41	SUT GASTRIC ULCER SITE
44.42	SUTURE DUODEN ULCER SITE
44.5	REVISION GASTRIC ANASTOM
44.61	SUTURE GASTRIC LACERAT
44.63	CLOSE GASTRIC FISTUL NEC
44.64	GASTROPEXY
44.65	ESOPHAGOGASTROPLASTY
44.66	CREAT ESOPHAGASTR SPHINC
44.69	GASTRIC REPAIR NEC
44.91	LIGATE GASTRIC VARICES
44.92	INTRAOP GASTRIC MANIPUL
44.99	GASTRIC OPERATION NEC
45.00	INTESTINAL INCISION NOS
45.01	DUODENAL INCISION
45.02	SMALL BOWEL INCISION NEC
45.03	LARGE BOWEL INCISION
45.31	OTH EXCISE DUODENUM LES

Table 5.19 General Surgery	
Code	Shortened Description
45.32	DESTRUCT DUODEN LES NEC
45.33	LOCAL EXCIS SM BOWEL NEC
45.34	DESTR SM BOWEL LES NEC
45.41	EXCISE LG INTESTINE LES
45.49	DESTRUC LG BOWEL LES NEC
45.50	INTEST SEG ISOLAT NOS
45.51	SM BOWEL SEGMENT ISOLAT
45.52	LG BOWEL SEGMENT ISOLAT
45.61	MULT SEG SM BOWEL EXCIS
45.62	PART SM BOWEL RESECT NEC
45.63	TOTAL REMOVAL SM BOWEL
45.71	OPN MUL SEG LG INTES NEC
45.72	OPEN CECECTOMY NEC
45.73	OPN RT HEMICOLECTOMY NEC
45.74	OPN TRANSV COLON RES NEC
45.75	OPN LFT HEMICOLECTMY NEC
45.76	OPEN SIGMOIDECTOMY NEC
45.79	PRT LG INTES EXC NEC/NOS
45.82	OP TOT INTR-ABD COLECTMY
45.83	TOT ABD COLECTMY NEC/NOS
45.90	INTESTINAL ANASTOM NOS
45.91	SM-TO-SM BOWEL ANASTOM
45.92	SM BOWEL-RECT STUMP ANAS
45.93	SMALL-TO-LARGE BOWEL NEC
45.94	LG-TO-LG BOWEL ANASTOM
45.95	ANAL ANASTOMOSIS
46.01	SM BOWEL EXTERIORIZATION
46.02	RESECT EXT SEG SM BOWEL
46.03	LG BOWEL EXTERIORIZATION
46.04	RESECT EXT SEG LG BOWEL
46.11	TEMPORARY COLOSTOMY
46.13	PERMANENT COLOSTOMY
46.20	ILEOSTOMY NOS
46.21	TEMPORARY ILEOSTOMY
46.22	CONTINENT ILEOSTOMY
46.23	PERMANENT ILEOSTOMY NEC
46.42	PERICOLOST HERNIA REPAIR
46.43	LG BOWEL STOMA REVIS NEC
46.50	INTEST STOMA CLOSURE NOS
46.51	SM BOWEL STOMA CLOSURE
46.52	LG BOWEL STOMA CLOSURE
46.60	INTESTINAL FIXATION NOS
46.61	SM BOWEL-ABD WALL FIXAT
46.62	SMALL BOWEL FIXATION NEC

Table 5.19 General Surgery	
Code	Shortened Description
46.63	LG BOWEL-ABD WALL FIXAT
46.64	LARGE BOWEL FIXATION NEC
46.71	DUODENAL LACERAT SUTURE
46.72	DUODENAL FISTULA CLOSURE
46.76	CLOSE LG BOWEL FISTULA
46.79	REPAIR OF INTESTINE NEC
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.41	SOAVE SUBMUC RECT RESECT
48.49	PULL-THRU RECT RESEC NEC
48.50	ABDPERNEAL RES RECTM NOS
48.52	OPN ABDPERNEAL RESC REC
48.59	ABDPERNEAL RESC RECT NEC
48.61	TRANS SAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
50.0	HEPATOTOMY
50.21	MARSUPIALIZAT LIVER LES
50.22	PARTIAL HEPATECTOMY
50.29	DESTRUC HEPATIC LES NEC
50.3	HEPATIC LOBECTOMY
51.31	GB-TO-HEPAT DUCT ANAST
51.32	GB-TO-INTESTINE ANASTOM
51.33	GB-TO-PANCREAS ANASTOM
51.34	GB-TO-STOMACH ANASTOMOS
51.35	GALLBLADDER ANASTOM NEC
51.36	CHOLEDOCHOENTEROSTOMY
51.37	HEPATIC DUCT-GI ANASTOM
51.39	BILE DUCT ANASTOMOS NEC
51.41	CDE FOR CALCULUS REMOV
51.42	CDE FOR OBSTRUCTION NEC
51.49	INCIS OBSTR BILE DUC NEC
51.51	COMMON DUCT EXPLORATION
51.59	BILE DUCT INCISION NEC
51.61	EXCIS CYST DUCT REMNANT
51.62	EXCIS AMPULLA OF VATER
51.63	COMMON DUCT EXCIS NEC
51.69	BILE DUCT EXCISION NEC

Table 5.19 General Surgery	
Code	Shortened Description
51.71	SIMPLE SUT-COMMON DUCT
51.72	CHOLEDOCHOPLASTY
51.79	BILE DUCT REPAIR NEC
51.81	SPHINCTER OF ODDI DILAT
51.82	PANCREAT SPHINCTEROTOM
51.83	PANCREAT SPHINCTEROPLAS
51.89	SPHINCT OF ODDI OP NEC
51.91	REPAIR GB LACERATION
51.92	CLOSURE CHOLECYSTOSTOMY
51.93	CLOS BILIARY FISTUL NEC
51.94	REVIS BILE TRACT ANASTOM
51.95	REMOVE BILE DUCT PROSTH
51.99	BILIARY TRACT OP NEC
52.09	PANCREATOTOMY NEC
52.22	OTHER DESTRU PANCREA LES
52.3	PANCREAT CYST MARSUPIALI
52.4	INT DRAIN PANCREAT CYST
52.51	PROXIMAL PANCREATECTOMY
52.52	DISTAL PANCREATECTOMY
52.53	RAD SUBTOT PANCREATECTOM
52.59	PARTIAL PANCREATECT NEC
52.6	TOTAL PANCREATECTOMY
52.7	RAD PANCREATICODUODENECT
52.92	CANNULATION PANCREA DUC
52.95	PANCREATIC REPAIR NEC
52.96	PANCREATIC ANASTOMOSIS
52.99	PANCREATIC OPERATION NEC
53.72	OPN ABD DIAPHRM HERN NEC
53.75	ABD REP-DIAPHR HERN NOS
53.80	THOR REP-DIAPH HERN NOS
53.81	DIAPHRAGMATIC PLICATION
53.82	PARASTERN HERNIA REPAIR
53.84	OPN THORC DIAPH HERN NEC
54.11	EXPLORATORY LAPAROTOMY
54.12	REOPEN RECENT LAP SITE
54.19	LAPAROTOMY NEC
54.4	DESTRUCT PERITONEAL TISS
54.59	OTH PERITON ADHESIOLYSIS
54.61	RECLOSE POST OP DISRUPT
54.62	DELAYED CLOS ABD WOUND
54.63	ABD WALL SUTURE NEC
54.64	PERITONEAL SUTURE
54.71	REPAIR OF GASTROSCHISIS
54.72	ABDOMEN WALL REPAIR NEC

Table 5.19 General Surgery	
Code	Shortened Description
54.73	PERITONEAL REPAIR NEC
54.74	OMENTAL REPAIR NEC
54.75	MESENTERIC REPAIR NEC
54.92	REMOVE FB FROM PERITON
54.94	CREAT PERITONEOVAS SHUNT
54.95	PERITONEAL INCISION

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Table 5.20 Gynecological Surgery	
Code	Shortened Description
65.22	OVARIAN WEDGE RESECTION
65.29	LOCAL DESTR OVA LES NEC
65.39	OTH UNILAT OOPHORECTOMY
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
68.31	LAP SCERVIC HYSTERECTOMY
68.49	TOTAL ABD HYST NEC/NOS
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.69	RADICAL ABD HYST NEC/NOS
68.79	RADICAL VAG HYST NEC/NOS

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Table 5.21 Urological Surgery	
Code	Shortened Description
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
56.51	FORM CUTAN ILEOURETEROST
56.52	REVIS CUTAN ILEOURETEROS

Table 5.21 Urological Surgery	
Code	Shortened Description
56.71	URIN DIVERSION TO BOWEL
56.72	REVIS URETEROENTEROSTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.09	PERIREN/URETER INCIS NEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY

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Table 5.22 Elective Hip Replacement	
Code	Shortened Description
00.70	REV HIP REPL-ACETAB/FEM
00.71	REV HIP REPL-ACETAB COMP
00.72	REV HIP REPL-FEM COMP
00.73	REV HIP REPL-LINER/HEAD
00.77	HIP SURFACE, CERMC/POLY
00.85	RESRF HIP,TOTAL-ACET/FEM
00.86	RESRF HIP,PART-FEM HEAD
00.87	RESRF HIP,PART-ACETABLUM
81.51	TOTAL HIP REPLACEMENT
81.52	PARTIAL HIP REPLACEMENT
81.53	REVISE HIP REPLACEMENT NOS

Table 5.23 Elective Total Knee Replacement	
Code	Shortened Description
00.80	REV KNEE REPLACEMT-TOTAL
00.81	REV KNEE REPL-TIBIA COMP
00.82	REV KNEE REPL-FEMUR COMP
00.83	REV KNEE REPLACE-PATELLA
00.84	REV KNEE REPL-TIBIA LIN
81.54	TOTAL KNEE REPLACEMENT
81.55	REVISE KNEE REPLACE NOS

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Table 5.24 Hip Fracture Surgery	
Code	Shortened Description
81.40	REPAIR OF HIP, NEC

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Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
00.70	REV HIP REPL-ACETAB/FEM
00.71	REV HIP REPL-ACETAB COMP
00.72	REV HIP REPL-FEM COMP
00.73	REV HIP REPL-LINER/HEAD
00.77	HIP SURFACE, CERMC/POLY
00.80	REV KNEE REPLACEMT-TOTAL
00.81	REV KNEE REPL-TIBIA COMP
00.82	REV KNEE REPL-FEMUR COMP
00.83	REV KNEE REPLACE-PATELLA
00.84	REV KNEE REPL-TIBIA LIN
00.85	RESRF HIP,TOTAL-ACET/FEM
00.86	RESRF HIP,PART-FEM HEAD
00.87	RESRF HIP,PART-ACETABLUM
01.21	CRANIAL SINUS I & D
01.23	REOPEN CRANIOTOMY SITE
01.24	OTHER CRANIOTOMY
01.25	OTHER CRANIECTOMY
01.31	INCISE CEREBRAL MENINGES
01.32	LOBOTOMY & TRACTOTOMY
01.39	OTHER BRAIN INCISION
01.41	THALAMUS OPERATIONS
01.42	GLOBUS PALLIDUS OPS
01.51	EX CEREB MENINGEAL LES
01.52	HEMISPHERECTOMY
01.53	BRAIN LOBECTOMY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
01.59	OTHER BRAIN EXCISION
32.39	OTH SEG LUNG RESECT NOS
32.49	LOBECTOMY OF LUNG NEC
32.59	OTHER PNEUMONECTOMY NOS
34.51	DECORTICATION OF LUNG
34.59	OTHER PLEURAL EXCISION
34.81	EXCISE DIAPHRAGM LESION
34.82	SUTURE DIAPHRAGM LACERAT
34.83	CLOSE DIAPHRAGM FISTULA
34.84	OTHER DIAPHRAGM REPAIR
34.89	DIAPHRAGM OPERATION NEC
35.71	ATRIA SEPTA DEF REP NEC
36.03	OPEN CORONRY ANGIOPLASTY
36.31	OPEN CHEST TRANS REVASC
36.91	CORON VESS ANEURYSM REP
36.99	HEART VESSEL OP NEC
37.10	INCISION OF HEART NOS
37.11	CARDIOTOMY
37.32	HEART ANEURYSM EXCISION
37.33	EXC/DEST HRT LESION OPEN
37.35	PARTIAL VENTRICULECTOMY
37.36	EXC LEFT ATRIAL APPENDAG
37.41	IMPL CARDIAC SUPPORT DEV
37.49	HEART/PERICARD REPR NEC
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.55	REM INT BIVENT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.64	REMVE EXT HRT ASSIST SYS
37.66	IMPLANTABLE HRT ASSIST
37.67	IMP CARDIOMYOSTIMUL SYS
41.5	TOTAL SPLENECTOMY
42.01	ESOPHAGEAL WEB INCISION
42.09	ESOPHAGEAL INCISION NEC
42.10	ESOPHAGOSTOMY NOS
42.11	CERVICAL ESOPHAGOSTOMY
42.12	ESOPH POUCH EXTERIORIZAT
42.19	EXT FISTULIZAT ESOPH NEC
42.40	ESOPHAGECTOMY NOS
42.41	PARTIAL ESOPHAGECTOMY
42.42	TOTAL ESOPHAGECTOMY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
42.51	THORAC ESOPHAGOESOPHAGOS
42.52	THORAC ESOPHAGOGASTROST
42.53	THORAC SM BOWEL INTERPOS
42.54	THORAC ESOPHAGOENTER NEC
42.55	THORAC LG BOWEL INTERPOS
42.56	THORAC ESOPHAGOCOLOS NEC
42.58	THORAC INTERPOSITION NEC
42.59	THORAC ESOPHAG ANAST NEC
42.61	STERN ESOPHAGOESOPHAGOST
42.62	STERN ESOPHAGOGASTROSTOM
42.63	STERN SM BOWEL INTERPOS
42.64	STERN ESOPHAGOENTER NEC
42.65	STERN LG BOWEL INTERPOS
42.66	STERN ESOPHAGOCOLOS NEC
42.68	STERN INTERPOSITION NEC
42.69	STERN ESOPHAG ANAST NEC
42.82	SUTURE ESOPHAGEAL LACER
42.83	ESOPHAGOSTOMY CLOSURE
42.84	ESOPH FISTULA REPAIR NEC
42.85	ESOPHAG STRICTURE REPAIR
42.86	PROD SUBQ TUNNEL NO ANAS
42.87	ESOPHAGEAL GRAFT NEC
42.89	ESOPHAGEAL REPAIR NEC
43.5	PROXIMAL GASTRECTOMY
43.6	DISTAL GASTRECTOMY
43.7	PART GASTREC W JEJ ANAST
43.81	PART GAST W JEJ TRANSPOS
43.89	PARTIAL GASTRECTOMY NEC
43.91	TOT GAST W INTES INTERPO
43.99	TOTAL GASTRECTOMY NEC
44.00	VAGOTOMY NOS
44.01	TRUNCAL VAGOTOMY
44.02	HIGHLY SELECT VAGOTOMY
44.03	SELECTIVE VAGOTOMY NEC
44.21	DILATE PYLORUS, INCISION
44.29	OTHER PYLOROPLASTY
44.31	HIGH GASTRIC BYPASS
44.39	GASTROENTEROSTOMY NEC
44.40	SUTURE PEPTIC ULCER NOS
44.41	SUT GASTRIC ULCER SITE
44.42	SUTURE DUODEN ULCER SITE
44.5	REVISION GASTRIC ANASTOM
44.61	SUTURE GASTRIC LACERAT
44.63	CLOSE GASTRIC FISTUL NEC
44.64	GASTROPEXY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
44.65	ESOPHAGOGASTROPLASTY
44.66	CREAT ESOPHAGASTR SPHINC
44.69	GASTRIC REPAIR NEC
44.91	LIGATE GASTRIC VARICES
44.92	INTRAOP GASTRIC MANIPUL
44.99	GASTRIC OPERATION NEC
45.01	DUODENAL INCISION
45.02	SMALL BOWEL INCISION NEC
45.31	OTH EXCISE DUODENUM LES
45.32	DESTRUCT DUODEN LES NEC
45.33	LOCAL EXCIS SM BOWEL NEC
45.34	DESTR SM BOWEL LES NEC
45.41	EXCISE LG INTESTINE LES
45.51	SM BOWEL SEGMENT ISOLAT
45.52	LG BOWEL SEGMENT ISOLAT
45.61	MULT SEG SM BOWEL EXCIS
45.62	PART SM BOWEL RESECT NEC
45.63	TOTAL REMOVAL SM BOWEL
45.82	OP TOT INTR-ABD COLECTMY
45.83	TOT ABD COLECTMY NEC/NOS
45.91	SM-TO-SM BOWEL ANASTOM
46.01	SM BOWEL EXTERIORIZATION
46.02	RESECT EXT SEG SM BOWEL
46.11	TEMPORARY COLOSTOMY
46.20	ILEOSTOMY NOS
46.21	TEMPORARY ILEOSTOMY
46.22	CONTINENT ILEOSTOMY
46.23	PERMANENT ILEOSTOMY NEC
46.42	PERICOLOST HERNIA REPAIR
46.43	LG BOWEL STOMA REVIS NEC
46.50	INTEST STOMA CLOSURE NOS
46.51	SM BOWEL STOMA CLOSURE
46.52	LG BOWEL STOMA CLOSURE
46.60	INTESTINAL FIXATION NOS
46.61	SM BOWEL-ABD WALL FIXAT
46.62	SMALL BOWEL FIXATION NEC
46.63	LG BOWEL-ABD WALL FIXAT
46.64	LARGE BOWEL FIXATION NEC
46.71	DUODENAL LACERAT SUTURE
46.72	DUODENAL FISTULA CLOSURE
46.79	REPAIR OF INTESTINE NEC
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.41	SOAVE SUBMUC RECT RESECT
48.49	PULL-THRU RECT RESEC NEC

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
48.52	OPN ABDPERNEAL RESC REC
48.59	ABDPERNEAL RESC RECT NEC
48.72	CLOSURE OF PROCTOSTOMY
48.73	CLOSE RECTAL FIST NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
50.0	HEPATOTOMY
50.21	MARSUPIALIZAT LIVER LES
50.22	PARTIAL HEPATECTOMY
50.29	DESTRUC HEPATIC LES NEC
50.3	HEPATIC LOBECTOMY
51.31	GB-TO-HEPAT DUCT ANAST
51.32	GB-TO-INTESTINE ANASTOM
51.33	GB-TO-PANCREAS ANASTOM
51.34	GB-TO-STOMACH ANASTOMOS
51.35	GALLBLADDER ANASTOM NEC
51.36	CHOLEDOCHOENTEROSTOMY
51.37	HEPATIC DUCT-GI ANASTOM
51.39	BILE DUCT ANASTOMOS NEC
51.41	CDE FOR CALCULUS REMOV
51.42	CDE FOR OBSTRUCTION NEC
51.49	INCIS OBSTR BILE DUC NEC
51.51	COMMON DUCT EXPLORATION
51.59	BILE DUCT INCISION NEC
51.61	EXCIS CYST DUCT REMNANT
51.62	EXCIS AMPULLA OF VATER
51.63	COMMON DUCT EXCIS NEC
51.69	BILE DUCT EXCISION NEC
51.71	SIMPLE SUT-COMMON DUCT
51.72	CHOLEDOCHOPLASTY
51.79	BILE DUCT REPAIR NEC
51.81	SPHINCTER OF ODDI DILAT
51.82	PANCREAT SPHINCTEROTOM
51.83	PANCREAT SPHINCTEROPLAS
51.89	SPHINCT OF ODDI OP NEC
51.91	REPAIR GB LACERATION
51.92	CLOSURE CHOLECYSTOSTOMY
51.93	CLOS BILIARY FISTUL NEC
51.94	REVIS BILE TRACT ANASTOM
51.95	REMOVE BILE DUCT PROSTH
51.99	BILIARY TRACT OP NEC
52.09	PANCREATOTOMY NEC
52.22	OTHER DESTRU PANCREA LES
52.3	PANCREAT CYST MARSUPIALI

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
52.4	INT DRAIN PANCREAT CYST
52.51	PROXIMAL PANCREATECTOMY
52.52	DISTAL PANCREATECTOMY
52.53	RAD SUBTOT PANCREATECTOM
52.59	PARTIAL PANCREATECT NEC
52.6	TOTAL PANCREATECTOMY
52.7	RAD PANCREATICODUODENECT
52.92	CANNULATION PANCREA DUC
52.95	PANCREATIC REPAIR NEC
52.96	PANCREATIC ANASTOMOSIS
52.99	PANCREATIC OPERATION NEC
53.72	OPN ABD DIAPHRM HERN NEC
53.75	ABD REP-DIAPHR HERN NOS
53.80	THOR REP-DIAPH HERN NOS
53.81	DIAPHRAGMATIC PLICATION
53.82	PARASTERN HERNIA REPAIR
53.84	OPN THORC DIAPH HERN NEC
54.11	EXPLORATORY LAPAROTOMY
54.12	REOPEN RECENT LAP SITE
54.19	LAPAROTOMY NEC
54.4	DESTRUCT PERITONEAL TISS
54.59	OTH PERITON ADHESIOLYSIS
54.61	RECLOSE POST OP DISRUPT
54.62	DELAYED CLOS ABD WOUND
54.63	ABD WALL SUTURE NEC
54.64	PERITONEAL SUTURE
54.71	REPAIR OF GASTROSCHISIS
54.72	ABDOMEN WALL REPAIR NEC
54.73	PERITONEAL REPAIR NEC
54.74	OMENTAL REPAIR NEC
54.75	MESENTERIC REPAIR NEC
54.92	REMOVE FB FROM PERITON
54.94	CREAT PERITONEOVAS SHUNT
54.95	PERITONEAL INCISION
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
56.51	FORM CUTAN ILEOURETEROST
56.52	REVIS CUTAN ILEOURETEROS
56.71	URIN DIVERSION TO BOWEL
56.72	REVIS URETEROENTEROSTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.09	PERIREN/URETER INCIS NEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY
65.22	OVARIAN WEDGE RESECTION
65.29	LOCAL DESTR OVA LES NEC
65.39	OTH UNILAT OOPHORECTOMY
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
81.40	REPAIR OF HIP, NEC
81.53	REVISE HIP REPLACEMT NOS
81.55	REVISE KNEE REPLACE NOS

Last Updated: Version 3.2

Table 6.1 Asthma	
Code	Shortened Description
493.00	EXTRINSIC ASTHMA NOS
493.01	EXT ASTHMA W STATUS ASTH

Table 6.1 Asthma	
Code	Shortened Description
493.02	EXT ASTHMA W(ACUTE) EXAC
493.10	INTRINSIC ASTHMA NOS
493.11	INT ASTHMA W STATUS ASTH
493.12	INT ASTHMA W (AC) EXAC
493.81	EXERCSE IND BRONCHOSPASM
493.82	COUGH VARIANT ASTHMA
493.90	ASTHMA NOS
493.91	ASTHMA W STATUS ASTHMAT
493.92	ASTHMA NOS W (AC) EXAC

Last Updated: Version 3.2

Table 7.01 Mental Disorders	
Code	Shortened Description
290.0	SENILE DEMENTIA UNCOMP
290.10	PRESENILE DEMENTIA
290.11	PRESENILE DELIRIUM
290.12	PRESENILE DELUSION
290.13	PRESENILE DEPRESSION
290.20	SENILE DELUSION
290.21	SENILE DEPRESSIVE
290.3	SENILE DELIRIUM
290.40	VASCULAR DEMENTIA,UNCOMP
290.41	VASC DEMENTIA W DELIRIUM
290.42	VASC DEMENTIA W DELUSION
290.43	VASC DEMENTIA W DEPRESSN
290.8	SENILE PSYCHOSIS NEC
290.9	SENILE PSYCHOT COND NOS
291.0	DELIRIUM TREMENS
291.1	ALCOHOL AMNESTIC DISORDR
291.2	ALCOHOL PERSIST DEMENTIA
291.3	ALCOH PSY DIS W HALLUCIN
291.4	PATHOLOGIC ALCOHOL INTOX
291.5	ALCOH PSYCH DIS W DELUS
291.81	ALCOHOL WITHDRAWAL
291.82	ALCOH INDUCE SLEEP DISOR
291.89	ALCOHOL MENTAL DISOR NEC
291.9	ALCOHOL MENTAL DISOR NOS
292.0	DRUG WITHDRAWAL
292.11	DRUG PSYCH DISOR W DELUS
292.12	DRUG PSY DIS W HALLUCIN
292.2	PATHOLOGIC DRUG INTOX
292.81	DRUG-INDUCED DELIRIUM
292.82	DRUG PERSISTING DEMENTIA

Table 7.01 Mental Disorders	
Code	Shortened Description
292.83	DRUG PERSIST AMNESTIC DIS
292.84	DRUG-INDUCED MOOD DISORD
292.85	DRUG INDUCED SLEEP DISOR
292.89	DRUG MENTAL DISORDER NEC
292.9	DRUG MENTAL DISORDER NOS
293.0	DELIRIUM D/T OTHER COND
293.1	SUBACUTE DELIRIUM
293.81	PSY DIS W DELUS OTH DIS
293.82	PSY DIS W HALLUC OTH DIS
293.83	MOOD DISORDER OTHER DIS
293.84	ANXIETY DISORDER OTH DIS
293.89	TRANSIENT MENTAL DIS NEC
293.9	TRANSIENT MENTAL DIS NOS
294.0	AMNESTIC DISORD OTH DIS
294.10	DEMENTIA W/O BEHAV DIST
294.11	DEMENTIA W BEHAVIOR DIST
294.8	MENTAL DISOR NEC OTH DIS
294.9	MENTAL DISOR NOS OTH DIS
295.00	SIMPL SCHIZOPHREN-UNSPEC
295.01	SIMPL SCHIZOPHREN-SUBCHR
295.02	SIMPLE SCHIZOPHREN-CHR
295.03	SIMP SCHIZ-SUBCHR/EXACER
295.04	SIMPL SCHIZO-CHR/EXACERB
295.05	SIMPL SCHIZOPHREN-REMISS
295.10	HEBEPHRENIA-UNSPEC
295.11	HEBEPHRENIA-SUBCHRONIC
295.12	HEBEPHRENIA-CHRONIC
295.13	HEBEPHREN-SUBCHR/EXACERB
295.14	HEBEPHRENIA-CHR/EXACERB
295.15	HEBEPHRENIA-REMISSION
295.20	CATATONIA-UNSPEC
295.21	CATATONIA-SUBCHRONIC
295.22	CATATONIA-CHRONIC
295.23	CATATONIA-SUBCHR/EXACERB
295.24	CATATONIA-CHR/EXACERB
295.25	CATATONIA-REMISSION
295.30	PARANOID SCHIZO-UNSPEC
295.31	PARANOID SCHIZO-SUBCHR
295.32	PARANOID SCHIZO-CHRONIC
295.33	PARAN SCHIZO-SUBCHR/EXAC
295.34	PARAN SCHIZO-CHR/EXACERB
295.35	PARANOID SCHIZO-REMISS
295.40	SCHIZOPHRENIFORM DIS NOS
295.41	SCHIZOPHRENIC DIS-SUBCHR

Table 7.01 Mental Disorders	
Code	Shortened Description
295.42	SCHIZOPHREN DIS-CHRONIC
295.43	SCHIZO DIS-SUBCHR/EXACER
295.44	SCHIZOPHR DIS-CHR/EXACER
295.45	SCHIZOPHRENIC DIS-REMISS
295.50	LATENT SCHIZOPHREN-UNSP
295.51	LAT SCHIZOPHREN-SUBCHR
295.52	LATENT SCHIZOPHREN-CHR
295.53	LAT SCHIZO-SUBCHR/EXACER
295.54	LATENT SCHIZO-CHR/EXACER
295.55	LAT SCHIZOPHREN-REMISS
295.60	SCHIZOPHR DIS RESID NOS
295.61	SCHIZOPH DIS RESID-SUBCH
295.62	SCHIZOPHR DIS RESID-CHR
295.63	SCHIZO RESID SUBCHR/EXAC
295.64	SCHIZOPH RESID-CHRO/EXAC
295.65	SCHIZOPH DIS RESID-REMIS
295.70	SCHIZOAFFECTIVE DIS NOS
295.71	SCHIZOAFFECTV DIS-SUBCHR
295.72	SCHIZOAFFECTIVE DIS-CHR
295.73	SCHIZOAFV DIS-SUBCH/EXAC
295.74	SCHIZOAFV DIS-CHR/EXAC
295.75	SCHIZOAFFECTIVE DIS-REMIS
295.80	SCHIZOPHRENIA NEC-UNSPEC
295.81	SCHIZOPHRENIA NEC-SUBCHR
295.82	SCHIZOPHRENIA NEC-CHR
295.83	SCHIZO NEC-SUBCHR/EXACER
295.84	SCHIZO NEC-CHR/EXACERB
295.85	SCHIZOPHRENIA NEC-REMISS
295.90	SCHIZOPHRENIA NOS-UNSPEC
295.91	SCHIZOPHRENIA NOS-SUBCHR
295.92	SCHIZOPHRENIA NOS-CHR
295.93	SCHIZO NOS-SUBCHR/EXACER
295.94	SCHIZO NOS-CHR/EXACERB
295.95	SCHIZOPHRENIA NOS-REMISS
296.00	BIPOL I SINGLE MANIC NOS
296.01	BIPOL I SINGLE MANC-MILD
296.02	BIPOL I SINGLE MANIC-MOD
296.03	BIPOL I SING-SEV W/O PSY
296.04	BIPO I SIN MAN-SEV W PSY
296.05	BIPOL I SING MAN REM NOS
296.06	BIPOL I SINGLE MANIC REM
296.10	RECUR MANIC DIS-UNSPEC
296.11	RECUR MANIC DIS-MILD
296.12	RECUR MANIC DIS-MOD

Table 7.01 Mental Disorders	
Code	Shortened Description
296.13	RECUR MANIC DIS-SEVERE
296.14	RECUR MANIC-SEV W PSYCHO
296.15	RECUR MANIC-PART REMISS
296.16	RECUR MANIC-FULL REMISS
296.20	DEPRESS PSYCHOSIS-UNSPEC
296.21	DEPRESS PSYCHOSIS-MILD
296.22	DEPRESSIVE PSYCHOSIS-MOD
296.23	DEPRESS PSYCHOSIS-SEVERE
296.24	DEPR PSYCHOS-SEV W PSYCH
296.25	DEPR PSYCHOS-PART REMISS
296.26	DEPR PSYCHOS-FULL REMISS
296.30	RECURR DEPR PSYCHOS-UNSP
296.31	RECURR DEPR PSYCHOS-MILD
296.32	RECURR DEPR PSYCHOS-MOD
296.33	RECUR DEPR PSYCH-SEVERE
296.34	REC DEPR PSYCH-PSYCHOTIC
296.35	RECUR DEPR PSYC-PART REM
296.36	RECUR DEPR PSYC-FULL REM
296.40	BIPOL I CURRNT MANIC NOS
296.41	BIPOL I CURNT MANIC-MILD
296.42	BIPOL I CURRNT MANIC-MOD
296.43	BIPOL I MANC-SEV W/O PSY
296.44	BIPOL I MANIC-SEV W PSY
296.45	BIPOL I CUR MAN PART REM
296.46	BIPOL I CUR MAN FULL REM
296.50	BIPOL I CUR DEPRES NOS
296.51	BIPOL I CUR DEPRESS-MILD
296.52	BIPOL I CUR DEPRESS-MOD
296.53	BIPOL I CURR DEP W/O PSY
296.54	BIPOL I CURRNT DEP W PSY
296.55	BIPOL I CUR DEP REM NOS
296.56	BIPOL I CURRNT DEP REMIS
296.60	BIPOL I CURRNT MIXED NOS
296.61	BIPOL I CURRNT MIX-MILD
296.62	BIPOL I CURRNT MIXED-MOD
296.63	BIPOL I CUR MIX W/O PSY
296.64	BIPOL I CUR MIXED W PSY
296.65	BIPOL I CUR MIX-PART REM
296.66	BIPOL I CUR MIXED REMISS
296.7	BIPOLOR I CURRENT NOS
296.80	BIPOLAR DISORDER NOS
296.81	ATYPICAL MANIC DISORDER
296.82	ATYPICAL DEPRESSIVE DIS
296.89	BIPOLAR DISORDER NEC

Table 7.01 Mental Disorders	
Code	Shortened Description
296.90	EPISODIC MOOD DISORD NOS
296.99	EPISODIC MOOD DISORD NEC
297.0	PARANOID STATE, SIMPLE
297.1	DELUSIONAL DISORDER
297.2	PARAPHRENIA
297.3	SHARED PSYCHOTIC DISORD
297.8	PARANOID STATES NEC
297.9	PARANOID STATE NOS
298.0	REACT DEPRESS PSYCHOSIS
298.1	EXCITATIV TYPE PSYCHOSIS
298.2	REACTIVE CONFUSION
298.3	ACUTE PARANOID REACTION
298.4	PSYCHOGEN PARANOID PSYCH
298.8	REACT PSYCHOSIS NEC/NOS
298.9	PSYCHOSIS NOS
299.00	AUTISTIC DISORD-CURRENT
299.01	AUTISTIC DISORD-RESIDUAL
299.10	CHILDHD DISINTEGR-ACTIVE
299.11	CHILDHD DISINTEGR-RESID
299.80	PERVASV DEV DIS-CUR NEC
299.81	PERVASV DEV DIS-RES NEC
299.90	PERVASV DEV DIS-CUR NOS
299.91	PERVASV DEV DIS-RES NOS
300.00	ANXIETY STATE NOS
300.01	PANIC DIS W/O AGORPHOBIA
300.02	GENERALIZED ANXIETY DIS
300.09	ANXIETY STATE NEC
300.10	HYSTERIA NOS
300.11	CONVERSION DISORDER
300.12	DISSOCIATIVE AMNESIA
300.13	DISSOCIATIVE FUGUE
300.14	DISSOCIATVE IDENTITY DIS
300.15	DISSOCIATIVE REACT NOS
300.16	FACTITIOUS DIS W SYMPTOM
300.19	FACTITIOUS ILL NEC/NOS
300.20	PHOBIA NOS
300.21	AGORAPHOBIA W PANIC DIS
300.22	AGORAPHOBIA W/O PANIC
300.23	SOCIAL PHOBIA
300.29	ISOLATED/SPEC PHOBIA NEC
300.3	OBSESSIVE-COMPULSIVE DIS
300.4	DYSTHYMIC DISORDER
300.5	NEURASTHENIA
300.6	DEPERSONALIZATION DISORD

Table 7.01 Mental Disorders	
Code	Shortened Description
300.7	HYPOCHONDRIASIS
300.81	SOMATIZATION DISORDER
300.82	UNDIFF SOMATOFORM DISRDR
300.89	SOMATOFORM DISORDERS NEC
300.9	NONPSYCHOTIC DISORD NOS
301.0	PARANOID PERSONALITY
301.10	AFFECTIV PERSONALITY NOS
301.11	CHRONIC HYPOMANIC PERSON
301.12	CHR DEPRESSIVE PERSON
301.13	CYCLOTHYMIC DISORDER
301.20	SCHIZOID PERSONALITY NOS
301.21	INTROVERTED PERSONALITY
301.22	SCHIZOTYPAL PERSON DIS
301.3	EXPLOSIVE PERSONALITY
301.4	OBSESSIVE-COMPULSIVE DIS
301.50	HISTRIONIC PERSON NOS
301.51	CHR FACTITIOUS ILLNESS
301.59	HISTRIONIC PERSON NEC
301.6	DEPENDENT PERSONALITY
301.7	ANTISOCIAL PERSONALITY
301.81	NARCISSISTIC PERSONALITY
301.82	AVOIDANT PERSONALITY DIS
301.83	BORDERLINE PERSONALITY
301.84	PASSIVE-AGGRESSIV PERSON
301.89	PERSONALITY DISORDER NEC
301.9	PERSONALITY DISORDER NOS
302.0	EGO-DYSTONIC SEX ORIENT
302.1	ZOOPHILIA
302.2	PEDOPHILIA
302.3	TRANSVESTIC FETISHISM
302.4	EXHIBITIONISM
302.50	TRANS-SEXUALISM NOS
302.51	TRANS-SEXUALISM, ASEXUAL
302.52	TRANS-SEXUAL, HOMOSEXUAL
302.53	TRANS-SEX, HETEROSEXUAL
302.6	GENDR IDENTITY DIS-CHILD
302.70	PSYCHOSEXUAL DYSFUNC NOS
302.71	HYPOACTIVE SEX DESIRE
302.72	INHIBITED SEX EXCITEMENT
302.73	FEMALE ORGASMIC DISORDER
302.74	MALE ORGASMIC DISORDER
302.75	PREMATURE EJACULATION
302.76	DYSPAREUNIA, PSYCHOGENIC
302.79	PSYCHOSEXUAL DYSFUNC NEC

Table 7.01 Mental Disorders	
Code	Shortened Description
302.81	FETISHISM
302.82	VOYEURISM
302.83	SEXUAL MASOCHISM
302.84	SEXUAL SADISM
302.85	GEND IDEN DIS, ADOL/ADULT
302.89	PSYCHOSEXUAL DIS NEC
302.9	PSYCHOSEXUAL DIS NOS
306.0	PSYCHOGEN MUSCULSKEL DIS
306.1	PSYCHOGENIC RESPIR DIS
306.2	PSYCHOGEN CARDIOVASC DIS
306.3	PSYCHOGENIC SKIN DISEASE
306.4	PSYCHOGENIC GI DISEASE
306.50	PSYCHOGENIC GU DIS NOS
306.51	PSYCHOGENIC VAGINISMUS
306.52	PSYCHOGENIC DYSMENORRHEA
306.53	PSYCHOGENIC DYSURIA
306.59	PSYCHOGENIC GU DIS NEC
306.6	PSYCHOGEN ENDOCRINE DIS
306.7	PSYCHOGENIC SENSORY DIS
306.8	PSYCHOGENIC DISORDER NEC
306.9	PSYCHOGENIC DISORDER NOS
307.0	STUTTERING
307.1	ANOREXIA NERVOSA
307.20	TIC DISORDER NOS
307.21	TRANSIENT TIC DISORDER
307.22	CHR MOTOR/VOCAL TIC DIS
307.23	TOURETTE'S DISORDER
307.3	STEREOTYPIC MOVEMENT DIS
307.40	NONORGANIC SLEEP DIS NOS
307.41	TRANSIENT INSOMNIA
307.42	PERSISTENT INSOMNIA
307.43	TRANSIENT HYPERSOMNIA
307.44	PERSISTENT HYPERSOMNIA
307.45	NONORGANIC CIRCADIAN RHY
307.46	SLEEP AROUSAL DISORDER
307.47	SLEEP STAGE DYSFUNC NEC
307.48	REPETIT SLEEP INTRUSION
307.49	NONORGANIC SLEEP DIS NEC
307.50	EATING DISORDER NOS
307.51	BULIMIA NERVOSA
307.52	PICA
307.53	RUMINATION DISORDER
307.54	PSYCHOGENIC VOMITING
307.59	EATING DISORDER NEC

Table 7.01 Mental Disorders	
Code	Shortened Description
307.6	ENURESIS
307.7	ENCOPRESIS
307.80	PSYCHOGENIC PAIN NOS
307.81	TENSION HEADACHE
307.89	PSYCHOGENIC PAIN NEC
307.9	SPECIAL SYMPTOM NEC/NOS
308.0	STRESS REACT, EMOTIONAL
308.1	STRESS REACTION, FUGUE
308.2	STRESS REACT, PSYCHOMOT
308.3	ACUTE STRESS REACT NEC
308.4	STRESS REACT, MIXED DIS
308.9	ACUTE STRESS REACT NOS
309.0	ADJUSTMNT DIS W DEPRESSN
309.1	PROLONG DEPRESSIVE REACT
309.21	SEPARATION ANXIETY
309.22	EMANCIPATION DISORDER
309.23	ACADEMIC/WORK INHIBITION
309.24	ADJUSTMENT DIS W ANXIETY
309.28	ADJUST DIS W ANXIETY/DEP
309.29	ADJ REACT-EMOTION NEC
309.3	ADJUST DISOR/DIS CONDUCT
309.4	ADJ DIS-EMOTION/CONDUCT
309.81	POSTTRAUMATIC STRESS DIS
309.82	ADJUST REACT-PHYS SYMPT
309.83	ADJUST REACT-WITHDRAWAL
309.89	ADJUSTMENT REACTION NEC
309.9	ADJUSTMENT REACTION NOS
310.0	FRONTAL LOBE SYNDROME
310.1	PERSONALITY CHG OTH DIS
310.2	POSTCONCUSSION SYNDROME
310.8	NONPSYCHOT BRAIN SYN NEC
310.9	NONPSYCHOT BRAIN SYN NOS
311	DEPRESSIVE DISORDER NEC
312.00	UNSOCIAL AGGRESS-UNSPEC
312.01	UNSOCIAL AGGRESSION-MILD
312.02	UNSOCIAL AGGRESSION-MOD
312.03	UNSOCIAL AGGRESS-SEVERE
312.10	UNSOCIAL UNAGGRESS-UNSP
312.11	UNSOCIAL UNAGGRESS-MILD
312.12	UNSOCIAL UNAGGRESS-MOD
312.13	UNSOCIAL UNAGGR-SEVERE
312.20	SOCIAL CONDUCT DIS-UNSP
312.21	SOCIAL CONDUCT DIS-MILD
312.22	SOCIAL CONDUCT DIS-MOD

Table 7.01 Mental Disorders	
Code	Shortened Description
312.23	SOCIAL CONDUCT DIS-SEV
312.30	IMPULSE CONTROL DIS NOS
312.31	PATHOLOGICAL GAMBLING
312.32	KLEPTOMANIA
312.33	PYROMANIA
312.34	INTERMITT EXPLOSIVE DIS
312.35	ISOLATED EXPLOSIVE DIS
312.39	IMPULSE CONTROL DIS NEC
312.4	MIX DIS CONDUCT/EMOTION
312.81	CNDCT DSRDR CHLDHD ONST
312.82	CNDCT DSRDR ADLSCNT ONST
312.89	OTHER CONDUCT DISORDER
312.9	CONDUCT DISTURBANCE NOS
313.0	OVERANXIOUS DISORDER
313.1	MISERY & UNHAPPINESS DIS
313.21	SHYNESS DISORDER-CHILD
313.22	INTROVERTED DIS-CHILD
313.23	SELECTIVE MUTISM
313.3	RELATIONSHIP PROBLEMS
313.81	OPPOSITION DEFIANT DISOR
313.82	IDENTITY DISORDER
313.83	ACADEMIC UNDERACHIEVMENT
313.89	EMOTIONAL DIS CHILD NEC
313.9	EMOTIONAL DIS CHILD NOS
314.00	ATTN DEFIC NONHYPERACT
314.01	ATTN DEFICIT W HYPERACT
314.1	HYPERKINET W DEVEL DELAY
314.2	HYPERKINETIC CONDUCT DIS
314.8	OTHER HYPERKINETIC SYND
314.9	HYPERKINETIC SYND NOS
315.00	READING DISORDER NOS
315.01	ALEXIA
315.02	DEVELOPMENTAL DYSLEXIA
315.09	READING DISORDER NEC
315.1	MATHEMATICS DISORDER
315.2	OTH LEARNING DIFFICULTY
315.31	EXPRESSIVE LANGUAGE DIS
315.32	RECP-EXPRES LANGUAGE DIS
315.34	SPEECHDEL D/T HEAR LOSS
315.39	SPEECH/LANGUAGE DIS NEC
315.4	DEVEL COORDINATION DIS
315.5	MIXED DEVELOPMENT DIS
315.8	DEVELOPMENT DELAYS NEC
315.9	DEVELOPMENT DELAY NOS

Table 7.01 Mental Disorders	
Code	Shortened Description
316	PSYCHIC FACTOR W OTH DIS
317	MILD MENTAL RETARDATION
318.0	MOD MENTAL RETARDATION
318.1	SEVERE MENTAL RETARDAT
318.2	PROFOUND MENTAL RETARDAT
319	MENTAL RETARDATION NOS

Last Updated: Version 3.2

Table 7.02 Obstetrics	
Code	Shortened Description
638.0	ATTEM ABORT W PELVIC INF
638.1	ATTEM ABORT W HEMORRHAGE
638.2	ATTEM ABORT W PELV DAMAG
638.3	ATTEM ABORT W RENAL FAIL
638.4	ATTEM ABOR W METABOL DIS
638.5	ATTEM ABORTION W SHOCK
638.7	ATTEMP ABORT W COMPL NEC
638.8	ATTEMP ABORT W COMPL NOS
638.9	ATTEMPTED ABORT UNCOMPL
640.00	THREATENED ABORT-UNSPEC
640.01	THREATENED ABORT-DELIVER
640.80	HEM EARLY PREG NEC-UNSP
640.81	HEM EARLY PREG NEC-DELIV
640.90	HEMORR EARLY PREG-UNSPEC
640.91	HEM EARLY PREG-DELIVERED
641.00	PLACENTA PREVIA-UNSPEC
641.01	PLACENTA PREVIA-DELIVER
641.03	PLACENTA PREVIA-ANTEPART
641.10	PLACENTA PREV HEM-UNSPEC
641.11	PLACENTA PREV HEM-DELIV
641.13	PLACEN PREV HEM-ANTEPART
641.20	PREM SEPAR PLACEN-UNSPEC
641.21	PREM SEPAR PLACEN-DELIV
641.23	PREM SEPAR PLAC-ANTEPART
641.30	COAG DEF HEMORR-UNSPEC
641.31	COAG DEF HEMORR-DELIVER
641.33	COAG DEF HEMORR-ANTEPART
641.80	ANTEPART HEM NEC-UNSPEC
641.81	ANTEPARTUM HEM NEC-DELIV
641.83	ANTEPART HEM NEC-ANTEPAR
641.90	ANTEPART HEM NOS-UNSPEC
641.91	ANTEPARTUM HEM NOS-DELIV
641.93	ANTEPART HEM NOS-ANTEPAR

Table 7.02 Obstetrics	
Code	Shortened Description
642.00	ESSEN HYPERTEN PREG-UNSP
642.01	ESSEN HYPERTEN-DELIVERED
642.02	ESSEN HYPERTEN-DEL W P/P
642.03	ESSEN HYPERTEN-ANTEPART
642.04	ESSEN HYPERTEN-POSTPART
642.10	RENAL HYPERTEN PREG-UNSP
642.11	RENAL HYPERTEN PG-DELIV
642.12	RENAL HYPERTEN-DEL P/P
642.13	RENAL HYPERTEN-ANTEPART
642.14	RENAL HYPERTEN-POSTPART
642.20	OLD HYPERTEN PREG-UNSPEC
642.21	OLD HYPERTEN NEC-DELIVER
642.22	OLD HYPERTEN-DELIV W P/P
642.23	OLD HYPERTEN NEC-ANTEPAR
642.24	OLD HYPERTEN NEC-POSTPAR
642.30	TRANS HYPERTEN PREG-UNSP
642.31	TRANS HYPERTEN-DELIVERED
642.32	TRANS HYPERTEN-DEL W P/P
642.33	TRANS HYPERTEN-ANTEPART
642.34	TRANS HYPERTEN-POSTPART
642.40	MILD/NOS PREECLAMP-UNSP
642.41	MILD/NOS PREECLAMP-DELIV
642.42	MILD PREECLAMP-DEL W P/P
642.43	MILD/NOS PREECLAMP-ANTEP
642.44	MILD/NOS PREECLAMP-P/P
642.50	SEVERE PREECLAMP-UNSPEC
642.51	SEVERE PREECLAMP-DELIVER
642.52	SEV PREECLAMP-DEL W P/P
642.53	SEV PREECLAMP-ANTEPARTUM
642.54	SEV PREECLAMP-POSTPARTUM
642.60	ECLAMPSIA-UNSPECIFIED
642.61	ECLAMPSIA-DELIVERED
642.62	ECLAMPSIA-DELIV W P/P
642.63	ECLAMPSIA-ANTEPARTUM
642.64	ECLAMPSIA-POSTPARTUM
642.70	TOX W OLD HYPERTEN-UNSP
642.71	TOX W OLD HYPERTEN-DELIV
642.72	TOX W OLD HYP-DEL W P/P
642.73	TOX W OLD HYPER-ANTEPART
642.74	TOX W OLD HYPER-POSTPART
642.90	HYPERTEN PREG NOS-UNSPEC
642.91	TOX W OLD HYP-DEL W P/P
642.92	HYPERTENS NOS-DEL W P/P
642.93	HYPERTENS NOS-ANTEPARTUM

Table 7.02 Obstetrics	
Code	Shortened Description
642.94	HYPERTENS NOS-POSTPARTUM
643.00	MILD HYPEREM GRAV-UNSPEC
643.01	MILD HYPEREM GRAV-DELIV
643.03	MILD HYPEREMESIS-ANTEPAR
643.10	HYPEREM W METAB DIS-UNSP
643.11	HYPEREM W METAB DIS-DEL
643.13	HYPEREM W METAB-ANTEPART
643.20	LATE VOMIT OF PREG-UNSP
643.21	LATE VOMIT OF PREG-DELIV
643.23	LATE VOMIT PREG-ANTEPART
643.80	VOMIT COMPL PREG-UNSPEC
643.81	VOMIT COMPL PREG-DELIVER
643.83	VOMIT COMPL PREG-ANTEPAR
643.90	VOMIT OF PREG NOS-UNSPEC
643.91	VOMIT OF PREG NOS-DELIV
643.93	VOMIT OF PG NOS-ANTEPART
644.00	THREAT PREM LABOR-UNSP
644.03	THRT PREM LABOR-ANTEPART
644.10	THREAT LABOR NEC-UNSPEC
644.13	THREAT LABOR NEC-ANTEPAR
644.20	EARLY ONSET DELIV-UNSPEC
644.21	EARLY ONSET DELIVERY-DEL
645.10	POST TERM PREG-UNSP
645.11	POST TERM PREG-DEL
645.13	POST TERM PREG-ANTEPAR
645.20	PROLONGED PREG-UNSP
645.21	PROLONGED PREG-DEL
645.23	PROLONGED PREG-ANTEPAR
646.00	PAPYRACEOUS FETUS-UNSPEC
646.01	PAPYRACEOUS FETUS-DELIV
646.03	PAPYRACEOUS FET-ANTEPAR
646.10	EDEMA IN PREG-UNSPEC
646.11	EDEMA IN PREG-DELIVERED
646.12	EDEMA IN PREG-DEL W P/P
646.13	EDEMA IN PREG-ANTEPARTUM
646.14	EDEMA IN PREG-POSTPARTUM
646.20	RENAL DIS PREG NOS-UNSP
646.21	RENAL DIS NOS-DELIVERED
646.22	RENAL DIS NOS-DEL W P/P
646.23	RENAL DIS NOS-ANTEPARTUM
646.24	RENAL DIS NOS-POSTPARTUM
646.30	HABITUAL ABORTER-UNSPEC
646.31	HABITUAL ABORTER-DELIVER
646.33	HABITUAL ABORT-ANTEPART

Table 7.02 Obstetrics	
Code	Shortened Description
646.40	NEURITIS OF PREG-UNSPEC
646.41	NEURITIS-DELIVERED
646.42	NEURITIS-DELIVERED W P/P
646.43	NEURITIS OF PREG-ANTEPAR
646.44	NEURITIS OF PREG-POSTPAR
646.50	BACTERIURIA PREG-UNSPEC
646.51	ASYM BACTERIURIA-DELIVER
646.52	ASY BACTERURIA-DEL W P/P
646.53	ASY BACTERIURIA-ANTEPART
646.54	ASY BACTERIURIA-POSTPART
646.60	GU INFECT IN PREG-UNSPEC
646.61	GU INFECTION-DELIVERED
646.62	GU INFECTION-DELIV W P/P
646.63	GU INFECTION-ANTEPARTUM
646.64	GU INFECTION-POSTPARTUM
646.70	LIVER DIS IN PREG-UNSPEC
646.71	LIVER DISORDER-DELIVERED
646.73	LIVER DISORDER-ANTEPART
646.80	PREG COMPL NEC-UNSPEC
646.81	PREG COMPL NEC-DELIVERED
646.82	PREG COMPL NEC-DEL W P/P
646.83	PREG COMPL NEC-ANTEPART
646.84	PREG COMPL NEC-POSTPART
646.90	PREG COMPL NOS-UNSPEC
646.91	PREG COMPL NOS-DELIVERED
646.93	PREG COMPL NOS-ANTEPART
647.00	SYPHILIS IN PREG-UNSPEC
647.01	SYPHILIS-DELIVERED
647.02	SYPHILIS-DELIVERED W P/P
647.03	SYPHILIS-ANTEPARTUM
647.04	SYPHILIS-POSTPARTUM
647.10	GONORRHEA IN PREG-UNSPEC
647.11	GONORRHEA-DELIVERED
647.12	GONORRHEA-DELIVER W P/P
647.13	GONORRHEA-ANTEPARTUM
647.14	GONORRHEA-POSTPARTUM
647.20	OTHER VD IN PREG-UNSPEC
647.21	OTHER VD-DELIVERED
647.22	OTHER VD-DELIVERED W P/P
647.23	OTHER VD-ANTEPARTUM
647.24	OTHER VD-POSTPARTUM
647.30	TB IN PREG-UNSPECIFIED
647.31	TUBERCULOSIS-DELIVERED
647.32	TUBERCULOSIS-DELIV W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
647.33	TUBERCULOSIS-ANTEPARTUM
647.34	TUBERCULOSIS-POSTPARTUM
647.40	MALARIA IN PREG-UNSPEC
647.41	MALARIA-DELIVERED
647.42	MALARIA-DELIVERED W P/P
647.43	MALARIA-ANTEPARTUM
647.44	MALARIA-POSTPARTUM
647.50	RUBELLA IN PREG-UNSPEC
647.51	RUBELLA-DELIVERED
647.52	RUBELLA-DELIVERED W P/P
647.53	RUBELLA-ANTEPARTUM
647.54	RUBELLA-POSTPARTUM
647.60	OTH VIRUS IN PREG-UNSPEC
647.61	OTH VIRAL DIS-DELIVERED
647.62	OTH VIRAL DIS-DEL W P/P
647.63	OTH VIRAL DIS-ANTEPARTUM
647.64	OTH VIRAL DIS-POSTPARTU
647.80	INF DIS IN PREG NEC-UNSP
647.81	INFECT DIS NEC-DELIVERED
647.82	INFECT DIS NEC-DEL W P/P
647.83	INFECT DIS NEC-ANTEPART
647.84	INFECT DIS NEC-POSTPART
647.90	INFECT IN PREG NOS-UNSP
647.91	INFECT NOS-DELIVERED
647.92	INFECT NOS-DELIVER W P/P
647.93	INFECT NOS-ANTEPARTUM
647.94	INFECT NOS-POSTPARTUM
648.00	DIABETES IN PREG-UNSPEC
648.01	DIABETES-DELIVERED
648.02	DIABETES-DELIVERED W P/P
648.10	THYROID DYSFUN PREG-UNSP
648.11	THYROID DYSFUNC-DELIVER
648.12	THYROID DYSFUN-DEL W P/P
648.20	ANEMIA IN PREG-UNSPEC
648.21	ANEMIA-DELIVERED
648.22	ANEMIA-DELIVERED W P/P
648.30	DRUG DEPEND PREG-UNSPEC
648.31	DRUG DEPENDENCE-DELIVER
648.32	DRUG DEPENDEN-DEL W P/P
648.40	MENTAL DIS PREG-UNSPEC
648.41	MENTAL DISORDER-DELIVER
648.42	MENTAL DIS-DELIV W P/P
648.50	CONGEN CV DIS PREG-UNSP
648.51	CONGEN CV DIS-DELIVERED

Table 7.02 Obstetrics	
Code	Shortened Description
648.52	CONGEN CV DIS-DEL W P/P
648.60	CV DIS NEC PREG-UNSPEC
648.61	CV DIS NEC PREG-DELIVER
648.62	CV DIS NEC-DELIVER W P/P
648.70	BONE DISORD IN PREG-UNSP
648.71	BONE DISORDER-DELIVERED
648.72	BONE DISORDER-DEL W P/P
648.80	ABN GLUCOSE IN PREG-UNSP
648.81	ABN GLUCOSE TOLER-DELIV
648.82	ABN GLUCOSE-DELIV W P/P
648.90	OTH CURR COND PREG-UNSP
648.91	OTH CURR COND-DELIVERE
648.92	OTH CURR COND-DEL W P/P
649.00	TOBACCO USE DISORD-UNSPEC
649.01	TOBACCO USE DISOR-DELIV
649.02	TOBACCO USE DIS-DEL-P/P
649.10	OBESITY-UNSPECIFIED
649.11	OBESITY-DELIVERED
649.12	OBESITY-DELIVERED W P/P
649.20	BARIATRIC SURG STAT-UNSP
649.21	BARIATRIC SURG STAT-DEL
649.22	BARIATRIC SURG-DEL W P/P
649.30	COAGULATION DEF-UNSPEC
649.31	COAGULATION DEF-DELIV
649.32	COAGULATN DEF-DEL W P/P
649.40	EPILEPSY-UNSPECIFIED
649.41	EPILEPSY-DELIVERED
649.42	EPILEPSY-DELIVERED W P/P
649.50	SPOTTING-UNSPECIFIED
649.51	SPOTTING-DELIVERED
649.53	SPOTTING-ANTEPARTUM
649.60	UTERINE SIZE DESCRP-UNSP
649.61	UTERINE SIZE DESCREP-DEL
649.62	UTERINE SIZE-DEL W P/P
650	NORMAL DELIVERY
651.00	TWIN PREGNANCY-UNSPEC
651.01	TWIN PREGNANCY-DELIVERED
651.03	TWIN PREGNANCY-ANTEPART
651.10	TRIPLET PREGNANCY-UNSPEC
651.11	TRIPLET PREGNANCY-DELIV
651.13	TRIPLET PREG-ANTEPARTUM
651.20	QUADRUPLET PREG-UNSPEC
651.21	QUADRUPLET PREG-DELIVER
651.23	QUADRUPLET PREG-ANTEPART

Table 7.02 Obstetrics	
Code	Shortened Description
651.30	TWINS W FETAL LOSS-UNSP
651.31	TWINS W FETAL LOSS-DEL
651.33	TWINS W FETAL LOSS-ANTE
651.40	TRIPLETS W FET LOSS-UNSP
651.41	TRIPLETS W FET LOSS-DEL
651.43	TRIPLETS W FET LOSS-ANTE
651.50	QUADS W FETAL LOSS-UNSP
651.51	QUADS W FETAL LOSS-DEL
651.53	QUADS W FETAL LOSS-ANTE
651.60	MULT GES W FET LOSS-UNSP
651.61	MULT GES W FET LOSS-DEL
651.63	MULT GES W FET LOSS-ANTE
651.70	MUL GEST-FET REDUCT UNSP
651.71	MULT GEST-FET REDUCT DEL
651.73	MUL GEST-FET REDUCT ANTE
651.80	MULTI GESTAT NEC-UNSPEC
651.81	MULTI GESTAT NEC-DELIVER
651.83	MULTI GEST NEC-ANTEPART
651.90	MULTI GESTAT NOS-UNSPEC
651.91	MULT GESTATION NOS-DELIV
651.93	MULTI GEST NOS-ANTEPART
652.00	UNSTABLE LIE-UNSPECIFIED
652.01	UNSTABLE LIE-DELIVERED
652.03	UNSTABLE LIE-ANTEPARTUM
652.10	CEPHALIC VERS NOS-UNSPEC
652.11	CEPHALIC VERS NOS-DELIV
652.13	CEPHAL VERS NOS-ANTEPART
652.20	BREECH PRESENTAT-UNSPEC
652.21	BREECH PRESENTAT-DELIVER
652.23	BREECH PRESENT-ANTEPART
652.30	TRANSV/OBLIQ LIE-UNSPEC
652.31	TRANSVER/OBLIQ LIE-DELIV
652.33	TRANSV/OBLIQ LIE-ANTEPAR
652.40	FACE/BROW PRESENT-UNSPEC
652.41	FACE/BROW PRESENT-DELIV
652.43	FACE/BROW PRES-ANTEPART
652.50	HIGH HEAD AT TERM-UNSPEC
652.51	HIGH HEAD AT TERM-DELIV
652.53	HIGH HEAD TERM-ANTEPART
652.60	MULT GEST MALPRESEN-UNSP
652.61	MULT GEST MALPRES-DELIV
652.63	MULT GES MALPRES-ANTEPAR
652.70	PROLAPSED ARM-UNSPEC
652.71	PROLAPSED ARM-DELIVERED

Table 7.02 Obstetrics	
Code	Shortened Description
652.73	PROLAPSED ARM-ANTEPART
652.80	MALPOSITION NEC-UNSPEC
652.81	MALPOSITION NEC-DELIVER
652.83	MALPOSITION NEC-ANTEPART
652.90	MALPOSITION NOS-UNSPEC
652.91	MALPOSITION NOS-DELIVER
652.93	MALPOSITION NOS-ANTEPART
653.00	PELVIC DEFORM NOS-UNSPEC
653.01	PELVIC DEFORM NOS-DELIV
653.03	PELV DEFORM NOS-ANTEPART
653.10	CONTRACT PELV NOS-UNSPEC
653.11	CONTRACT PELV NOS-DELIV
653.13	CONTRAC PELV NOS-ANTEPAR
653.20	INLET CONTRACTION-UNSPEC
653.21	INLET CONTRACTION-DELIV
653.23	INLET CONTRACT-ANTEPART
653.30	OUTLET CONTRACTION-UNSP
653.31	OUTLET CONTRACTION-DELIV
653.33	OUTLET CONTRACT-ANTEPAR
653.40	FETOPELV DISPROP-UNSPEC
653.41	FETOPELV DISPROPOR-DELIV
653.43	FETOPELV DISPROP-ANTEPART
653.50	FETAL DISPROP NOS-UNSPEC
653.51	FETAL DISPROP NOS-DELIV
653.53	FETAL DISPRO NOS-ANTEPAR
653.60	HYDROCEPHAL FETUS-UNSPEC
653.61	HYDROCEPH FETUS-DELIVER
653.63	HYDROCEPH FETUS-ANTEPART
653.70	OTH ABN FET DISPROP-UNSP
653.71	OTH ABN FET DISPRO-DELIV
653.73	OTH ABN FET DISPRO-ANTEP
653.80	DISPROPORTION NEC-UNSPEC
653.81	DISPROPORTION NEC-DELIV
653.83	DISPROPOR NEC-ANTEPARTUM
653.90	DISPROPORTION NOS-UNSPEC
653.91	DISPROPORTION NOS-DELIV
653.93	DISPROPOR NOS-ANTEPARTUM
654.00	CONG ABN UTER PREG-UNSP
654.01	CONGEN ABN UTERUS-DELIV
654.02	CONG ABN UTER-DEL W P/P
654.03	CONGEN ABN UTER-ANTEPART
654.04	CONGEN ABN UTER-POSTPART
654.10	UTER TUMOR IN PREG-UNSP
654.11	UTERINE TUMOR-DELIVERED

Table 7.02 Obstetrics	
Code	Shortened Description
654.12	UTERINE TUMOR-DEL W P/P
654.13	UTERINE TUMOR-ANTEPARTUM
654.14	UTERINE TUMOR-POSTPARTUM
654.20	PREV C-DELIVERY UNSPEC
654.21	PREV C-DELIVERY-DELIVRD
654.23	PREV C-DELIVERY-ANTEPART
654.30	RETROVERT UTERUS-UNSPEC
654.31	RETROVERT UTERUS-DELIVER
654.32	RETROVERT UTER-DEL W P/P
654.33	RETROVERT UTER-ANTEPART
654.34	RETROVERT UTER-POSTPART
654.40	ABN GRAV UTERUS NEC-UNSP
654.41	ABN UTERUS NEC-DELIVERED
654.42	ABN UTERUS NEC-DEL W P/P
654.43	ABN UTERUS NEC-ANTEPART
654.44	ABN UTERUS NEC-POSTPART
654.50	CERV INCOMPET PREG-UNSP
654.51	CERVICAL INCOMPET-DELIV
654.52	CERV INCOMPET-DEL W P/P
654.53	CERV INCOMPET-ANTEPARTUM
654.54	CERV INCOMPET-POSTPARTUM
654.60	ABN CERVIX NEC PREG-UNSP
654.61	ABN CERVIX NEC-DELIVERED
654.62	ABN CERVIX NEC-DEL W P/P
654.63	ABN CERVIX NEC-ANTEPART
654.64	ABN CERVIX NEC-POSTPART
654.70	ABN VAGINA IN PREG-UNSP
654.71	ABNORM VAGINA-DELIVERED
654.72	ABNORM VAGINA-DEL W P/P
654.73	ABNORM VAGINA-ANTEPARTUM
654.74	ABNORM VAGINA-POSTPARTUM
654.80	ABN VULVA IN PREG-UNSPEC
654.81	ABNORMAL VULVA-DELIVERED
654.82	ABNORMAL VULVA-DEL W P/P
654.83	ABNORMAL VULVA-ANTEPART
654.84	ABNORMAL VULVA-POSTPART
654.90	ABN PEL NEC IN PREG-UNSP
654.91	ABN PELV ORG NEC-DELIVER
654.92	ABN PELV NEC-DELIV W P/P
654.93	ABN PELV ORG NEC-ANTEPAR
654.94	ABN PELV ORG NEC-POSTPAR
655.00	FETAL CNS MALFORM-UNSPEC
655.01	FETAL CNS MALFORM-DELIV
655.03	FETAL CNS MALFOR-ANTEPAR

Table 7.02 Obstetrics	
Code	Shortened Description
655.10	FETAL CHROMOS ABN-UNSPEC
655.11	FETAL CHROMOSO ABN-DELIV
655.13	FET CHROMO ABN-ANTEPART
655.20	FAMIL HEREDIT DIS-UNSPEC
655.21	FAMIL HEREDIT DIS-DELIV
655.23	FAMIL HEREDIT DIS-ANTEPART
655.30	FET DAMG D/T VIRUS-UNSP
655.31	FET DAMG D/T VIRUS-DELIV
655.33	FET DAMG D/T VIRUS-ANTEP
655.40	FET DAMG D/T DIS-UNSPEC
655.41	FET DAMG D/T DIS-DELIVER
655.43	FET DAMG D/T DIS-ANTEPAR
655.50	FETAL DAMG D/T DRUG-UNSP
655.51	FET DAMAG D/T DRUG-DELIV
655.53	FET DAMG D/T DRUG-ANTEPA
655.60	RADIAT FETAL DAMAG-UNSP
655.61	RADIAT FETAL DAMAG-DELIV
655.63	RADIAT FET DAMAG-ANTEPAR
655.70	DECREASE FETL MOVMT UNSP
655.71	DECREASE FETAL MOVMT DEL
655.73	DEC FETAL MOVMT ANTEPART
655.80	FETAL ABNORM NEC-UNSPEC
655.81	FETAL ABNORM NEC-DELIVER
655.83	FETAL ABNORM NEC-ANTEPAR
655.90	FETAL ABNORM NOS-UNSPEC
655.91	FETAL ABNORM NOS-DELIV
655.93	FETAL ABNORM NOS-ANTEPAR
656.00	FETAL-MATERNAL HEM-UNSPEC
656.01	FETAL-MATERNAL HEM-DELIV
656.03	FETAL-MATERNAL HEM-ANTEPAR
656.10	RH ISOIMMUNIZAT-UNSPEC
656.11	RH ISOIMMUNIZAT-DELIV
656.13	RH ISOIMMUNIZAT-ANTEPART
656.20	ABO ISOIMMUNIZATION-UNSPEC
656.21	ABO ISOIMMUNIZAT-DELIV
656.23	ABO ISOIMMUNIZAT-ANTEPAR
656.30	FETAL DISTRESS-UNSPEC
656.31	FETAL DISTRESS-DELIV
656.33	FETAL DISTRESS-ANTEPART
656.40	INTRAUTERINE DEATH-UNSPEC
656.41	INTRAUTER DEATH-DELIV
656.43	INTRAUTER DEATH-ANTEPART
656.50	POOR FETAL GROWTH-UNSPEC
656.51	POOR FETAL GROWTH-DELIV

Table 7.02 Obstetrics	
Code	Shortened Description
656.53	POOR FETAL GRTH-ANTEPART
656.60	EXCESS FETAL GRTH-UNSPEC
656.61	EXCESS FETAL GRTH-DELIV
656.63	EXCESS FET GRTH-ANTEPART
656.70	OTH PLACENT COND-UNSPEC
656.71	OTH PLACENT COND-DELIV
656.73	OTH PLACENT COND-ANTEPAR
656.80	FET/PLAC PROB NEC-UNSPEC
656.81	FET/PLAC PROB NEC-DELIV
656.83	FET/PLAC PROB NEC-ANTEPA
656.90	FET/PLAC PROB NOS-UNSPEC
656.91	FET/PLAC PROB NOS-DELIV
656.93	FET/PLAC PROB NOS-ANTEPA
657.00	POLYHYDRAMNIOS-UNSPEC
657.01	POLYHYDRAMNIOS-DELIV
657.03	POLYHYDRAMNIOS-ANTEPART
658.00	OLIGOHYDRAMNIOS-UNSPEC
658.01	OLIGOHYDRAMNIOS-DELIV
658.03	OLIGOHYDRAMNIOS-ANTEPAR
658.10	PREM RUPT MEMBRAN-UNSPEC
658.11	PREM RUPT MEMBRAN-DELIV
658.13	PREM RUPT MEMB-ANTEPART
658.20	PROLONG RUPT MEMB-UNSPEC
658.21	PROLONG RUPT MEMB-DELIV
658.23	PROLONG RUP MEMB-ANTEPAR
658.30	ARTIFIC RUPT MEMBR-UNSP
658.31	ARTIFIC RUPT MEMBR-DELIV
658.33	ARTIF RUPT MEMB-ANTEPART
658.40	AMNIOTIC INFECTION-UNSP
658.41	AMNIOTIC INFECTION-DELIV
658.43	AMNIOTIC INFECT-ANTEPART
658.80	AMNIOTIC PROB NEC-UNSPEC
658.81	AMNIOTIC PROB NEC-DELIV
658.83	AMNION PROB NEC-ANTEPART
658.90	AMNIOTIC PROB NOS-UNSPEC
658.91	AMNIOTIC PROB NOS-DELIV
658.93	AMNION PROB NOS-ANTEPART
659.00	FAIL MECHAN INDUCT-UNSP
659.01	FAIL MECH INDUCT-DELIVER
659.03	FAIL MECH INDUCT-ANTEPAR
659.10	FAIL INDUCTION NOS-UNSP
659.11	FAIL INDUCTION NOS-DELIV
659.13	FAIL INDUCT NOS-ANTEPART
659.20	PYREXIA IN LABOR-UNSPEC

Table 7.02 Obstetrics	
Code	Shortened Description
659.21	PYREXIA IN LABOR-DELIVER
659.23	PYREXIA IN LABOR-ANTEPAR
659.30	SEPTICEMIA IN LABOR-UNSP
659.31	SEPTICEM IN LABOR-DELIV
659.33	SEPTICEM IN LABOR-ANTEPA
659.40	GRAND MULTIPARITY-UNSPEC
659.41	GRAND MULTIPARITY-DELIV
659.43	GRAND MULTIPARITY-ANTEPA
659.50	ELDERLY PRIMIGRAVID-UNSP
659.51	ELDERLY PRIMIGRAVIDA-DEL
659.53	ELDER PRIMIGRAVID-ANTEPA
659.60	ELDERLY MULTIGRAVIDA-UNS
659.61	ELDERLY MULTIGRAVIDA-DEL
659.63	ELDERLY MULTIGRAVD-ANTEP
659.70	ABN FTL HRT RATE/RHY-UNS
659.71	ABN FTL HRT RATE/RHY-DEL
659.73	ABN FTL HRT RATE/RHY-ANT
659.80	COMPLIC LABOR NEC-UNSP
659.81	COMPLIC LABOR NEC-DELIV
659.83	COMPL LABOR NEC-ANTEPART
659.90	COMPLIC LABOR NOS-UNSPEC
659.91	COMPLIC LABOR NOS-DELIV
659.93	COMPL LABOR NOS-ANTEPART
660.00	OBSTRUCT/FET MALPOS-UNSPEC
660.01	OBSTRUC/FET MALPOS-DELIV
660.03	OBSTRUC/FET MALPOS-ANTEP
660.10	BONY PELV OBSTRUC-UNSPEC
660.11	BONY PELV OBSTRUCT-DELIV
660.13	BONY PELV OBSTRUC-ANTEPA
660.20	ABN PELV TISS OBSTR-UNSPEC
660.21	ABN PELV TIS OBSTR-DELIV
660.23	ABN PELV TIS OBSTR-ANTEP
660.30	PERSIST OCCIPTPOST-UNSPEC
660.31	PERSIST OCCIPTPOST-DELIV
660.33	PERSIST OCCIPTPOST-ANTEP
660.40	SHOULDER DYSTOCIA-UNSPEC
660.41	SHOULDER DYSTOCIA-DELIV
660.43	SHOULDER DYSTOCIA-ANTEPA
660.50	LOCKED TWINS-UNSPECIFIED
660.51	LOCKED TWINS-DELIVERED
660.53	LOCKED TWINS-ANTEPARTUM
660.60	FAIL TRIAL LAB NOS-UNSP
660.61	FAIL TRIAL LAB NOS-DELIV
660.63	FAIL TRIAL LAB NOS-ANTEP

Table 7.02 Obstetrics	
Code	Shortened Description
660.70	FAILED FORCEP NOS-UNSPEC
660.71	FAILED FORCEPS NOS-DELIV
660.73	FAIL FORCEPS NOS-ANTEPAR
660.80	OBSTRUC LABOR NEC-UNSPEC
660.81	OBSTRUCT LABOR NEC-DELIV
660.83	OBSTRUC LABOR NEC-ANTEPA
660.90	OBSTRUC LABOR NOS-UNSPEC
660.91	OBSTRUCT LABOR NOS-DELIV
660.93	OBSTRUC LABOR NOS-ANTEPA
661.00	PRIM UTERINE INERT-UNSP
661.01	PRIM UTERINE INERT-DELIV
661.03	PRIM UTER INERT-ANTEPART
661.10	SEC UTERINE INERT-UNSPEC
661.11	SEC UTERINE INERT-DELIV
661.13	SEC UTERINE INERT-ANTEPA
661.20	UTERINE INERTIA NEC-UNSP
661.21	UTERINE INERT NEC-DELIV
661.23	UTERINE INERT NEC-ANTEPA
661.30	PRECIPITATE LABOR-UNSPEC
661.31	PRECIPITATE LABOR-DELIV
661.33	PRECIPITATE LABOR-ANTEPA
661.40	UTER DYSTOCIA NOS-UNSPEC
661.41	UTER DYSTOCIA NOS-DELIV
661.43	UTER DYSTOCIA NOS-ANTEPA
661.90	ABNORMAL LABOR NOS-UNSP
661.91	ABNORMAL LABOR NOS-DELIV
661.93	ABNORM LABOR NOS-ANTEPAR
662.00	PROLONGED 1ST STAGE-UNSP
662.01	PROLONG 1ST STAGE-DELIV
662.03	PROLONG 1ST STAGE-ANTEPA
662.10	PROLONGED LABOR NOS-UNSP
662.11	PROLONG LABOR NOS-DELIV
662.13	PROLONG LABOR NOS-ANTEPA
662.20	PROLONGED 2ND STAGE-UNSP
662.21	PROLONG 2ND STAGE-DELIV
662.23	PROLONG 2ND STAGE-ANTEPA
662.30	DELAY DEL 2ND TWIN-UNSP
662.31	DELAY DEL 2ND TWIN-DELIV
662.33	DELAY DEL 2 TWIN-ANTEPAR
663.00	CORD PROLAPSE-UNSPEC
663.01	CORD PROLAPSE-DELIVERED
663.03	CORD PROLAPSE-ANTEPARTUM
663.10	CORD AROUND NECK-UNSP
663.11	CORD AROUND NECK-DELIVER

Table 7.02 Obstetrics	
Code	Shortened Description
663.13	CORD AROUND NECK-ANTEPAR
663.20	CORD COMPRESS NEC-UNSPEC
663.21	CORD COMPRESS NEC-DELIV
663.23	CORD COMPRES NEC-ANTEPAR
663.30	CORD ENTANGLE NEC-UNSPEC
663.31	CORD ENTANGLE NEC-DELIV
663.33	CORD ENTANGL NEC-ANTEPAR
663.40	SHORT CORD-UNSPECIFIED
663.41	SHORT CORD-DELIVERED
663.43	SHORT CORD-ANTEPARTUM
663.50	VASA PREVIA-UNSPECIFIED
663.51	VASA PREVIA-DELIVERED
663.53	VASA PREVIA-ANTEPARTUM
663.60	VASC LESION CORD-UNSPEC
663.61	VASC LESION CORD-DELIVER
663.63	VASC LESION CORD-ANTEPAR
663.80	CORD COMPLICAT NEC-UNSP
663.81	CORD COMPLICAT NEC-DELIV
663.83	CORD COMPL NEC-ANTEPART
663.90	CORD COMPLICAT NOS-UNSP
663.91	CORD COMPLICAT NOS-DELIV
663.93	CORD COMPL NOS-ANTEPART
664.00	DEL W 1 DEG LACERAT-UNSP
664.01	DEL W 1 DEG LACERAT-DEL
664.04	DEL W 1 DEG LAC-POSTPART
664.10	DEL W 2 DEG LACERAT-UNSP
664.11	DEL W 2 DEG LACERAT-DEL
664.14	DEL W 2 DEG LAC-POSTPART
664.20	DEL W 3 DEG LACERAT-UNSP
664.21	DEL W 3 DEG LACERAT-DEL
664.24	DEL W 3 DEG LAC-POSTPART
664.30	DEL W 4 DEG LACERAT-UNSP
664.31	DEL W 4 DEG LACERAT-DEL
664.34	DEL W 4 DEG LAC-POSTPART
664.40	OB PERINEAL LAC NOS-UNSP
664.41	OB PERINEAL LAC NOS-DEL
664.44	PERINEAL LAC NOS-POSTPAR
664.50	OB PERINEAL HEMATOM-UNSP
664.51	OB PERINEAL HEMATOMA-DEL
664.54	PERIN HEMATOMA-POSTPART
664.80	OB PERIN TRAUM NEC-UNSP
664.81	OB PERINEAL TRAU NEC-DEL
664.84	PERIN TRAUM NEC-POSTPART
664.90	OB PERIN TRAUM NOS-UNSP

Table 7.02 Obstetrics	
Code	Shortened Description
664.91	OB PERINEAL TRAU NOS-DEL
664.94	PERIN TRAUM NOS-POSTPART
665.00	PRELABOR RUPT UTER-UNSP
665.01	PRELABOR RUPT UTERUS-DEL
665.03	PRELAB RUPT UTER-ANTEPAR
665.10	RUPTURE UTERUS NOS-UNSP
665.11	RUPTURE UTERUS NOS-DELIV
665.20	INVERSION OF UTERUS-UNSP
665.22	INVERS UTERUS-DEL W P/P
665.24	INVERS UTERUS-POSTPART
665.30	LACERAT OF CERVIX-UNSPEC
665.31	LACERAT OF CERVIX-DELIV
665.34	LACER OF CERVIX-POSTPART
665.40	HIGH VAGINAL LACER-UNSP
665.41	HIGH VAGINAL LACER-DELIV
665.44	HIGH VAGINAL LAC-POSTPAR
665.50	OB INJ PELV ORG NEC-UNSP
665.51	OB INJ PELV ORG NEC-DEL
665.54	INJ PELV ORG NEC-POSTPAR
665.60	DAMAGE TO PELVIC JT-UNSP
665.61	DAMAGE TO PELVIC JT-DEL
665.64	DAMAGE PELVIC JT-POSTPAR
665.70	OB PELVIC HEMATOMA-UNSP
665.71	OB PELVIC HEMATOMA-DELIV
665.72	PELVIC HEMATOM-DEL W PP
665.74	PELVIC HEMATOMA-POSTPART
665.80	OB TRAUMA NEC-UNSPEC
665.81	OB TRAUMA NEC-DELIVERED
665.82	OB TRAUMA NEC-DEL W P/P
665.83	OB TRAUMA NEC-ANTEPARTUM
665.84	OB TRAUMA NEC-POSTPARTUM
665.90	OB TRAUMA NOS-UNSPEC
665.91	OB TRAUMA NOS-DELIVERED
665.92	OB TRAUMA NOS-DEL W P/P
665.93	OB TRAUMA NOS-ANTEPARTUM
665.94	OB TRAUMA NOS-POSTPARTUM
666.00	THIRD-STAGE HEM-UNSPEC
666.02	THRD-STAGE HEM-DEL W P/P
666.04	THIRD-STAGE HEM-POSTPART
666.10	POSTPARTUM HEM NEC-UNSP
666.12	POSTPA HEM NEC-DEL W P/P
666.14	POSTPART HEM NEC-POSTPAR
666.20	DELAY P/PART HEM-UNSPEC
666.22	DELAY P/P HEM-DEL W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
666.24	DELAY P/PART HEM-POSTPAR
666.30	POSTPART COAGUL DEF-UNSP
666.32	P/P COAG DEF-DEL W P/P
666.34	POSTPART COAG DEF-POSTPA
667.00	RETAIN PLACENTA NOS-UNSP
667.02	RETND PLAC NOS-DEL W P/P
667.04	RETAIN PLAC NOS-POSTPART
667.10	RETAIN PROD CONCEPT-UNSP
667.12	RET PROD CONC-DEL W P/P
667.14	RET PROD CONCEPT-POSTPAR
668.00	PULM COMPL IN DEL-UNSPEC
668.01	PULM COMPL IN DEL-DELIV
668.02	PULM COMPLIC-DEL W P/P
668.10	HEART COMPL IN DEL-UNSP
668.11	HEART COMPL IN DEL-DELIV
668.12	HEART COMPL-DEL W P/P
668.20	CNS COMPL LABOR/DEL-UNSP
668.21	CNS COMPL LAB/DEL-DELIV
668.22	CNS COMPLIC-DEL W P/P
668.80	ANESTH COMP DEL NEC-UNSP
668.81	ANESTH COMPL NEC-DELIVER
668.82	ANESTH COMPL NEC-DEL P/P
668.83	ANESTH COMPL ANTEPARTUM
668.84	ANESTH COMPL-POSTPARTUM
668.90	ANESTH COMP DEL NOS-UNSP
668.91	ANESTH COMPL NOS-DELIVER
668.92	ANESTH COMPL NOS-DEL P/P
668.93	ANESTH COMPL-ANTEPARTUM
668.94	ANESTH COMPL-POSTPARTUM
669.00	MATERNAL DISTRESS-UNSPEC
669.01	MATERNAL DISTRESS-DELIV
669.02	MATERN DISTRES-DEL W P/P
669.03	MATERN DISTRESS-ANTEPAR
669.04	MATERN DISTRESS-POSTPART
669.10	OBSTETRIC SHOCK-UNSPEC
669.11	OBSTETRIC SHOCK-DELIVER
669.12	OBSTET SHOCK-DELIV W P/P
669.20	MATERN HYPOTENS SYN-UNSP
669.21	MATERN HYPOTEN SYN-DELIV
669.22	MATERN HYPOTEN-DEL W P/P
669.23	MATERN HYPOTENS-ANTEPAR
669.24	MATERN HYPOTENS-POSTPART
669.30	AC KIDNEY FAIL W DEL-UNSP
669.32	AC KIDNEY FAIL-DEL W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
669.40	OTH OB SURG COMPL-UNSPEC
669.41	OTH OB COMPL-DELIVERED
669.42	OTH OB COMPL-DELIV W P/P
669.43	COMPLC OB SURG ANTEPRTM
669.44	OTH OB SURG COMPL-POSTPA
669.50	FORCEP DELIV NOS-UNSPEC
669.51	FORCEP DELIV NOS-DELIVER
669.60	BREECH EXTR NOS-UNSPEC
669.61	BREECH EXTR NOS-DELIVER
669.70	CESAREAN DELIV NOS-UNSP
669.71	CESAREAN DELIVERY NOS
669.80	COMPL LAB/DELIV NEC-UNSP
669.81	COMP LAB/DELIV NEC-DELIV
669.82	COMPL DEL NEC-DEL W P/P
669.83	COMPL DELIV NEC-ANTEPAR
669.84	COMPL DELIV NEC-POSTPART
669.90	COMPL LAB/DELIV NOS-UNSP
669.91	COMP LAB/DELIV NOS-DELIV
669.92	COMPL DEL NOS-DEL W P/P
669.93	COMPL DELIV NOS-ANTEPAR
669.94	COMPL DELIV NOS-POSTPART
670.00	MAJ PUERP INF NOS-UNSP
670.02	MAJ PUER INF NOS-DEL P/P
670.04	MAJOR PUERP INF NOS-P/P
671.00	VARIC VEIN LEG PREG-UNSP
671.01	VARICOSE VEIN LEG-DELIV
671.02	VARIC VEIN LEG-DEL W P/P
671.10	VARIC VULVA PREG-UNSPEC
671.11	VARICOSE VULVA-DELIVERED
671.12	VARICOSE VULVA-DEL W P/P
671.20	THROMBOPHLEB PREG-UNSPEC
671.21	THROMBOPHLEBITIS-DELIVER
671.22	THROMBOPHLEB-DELIV W P/P
671.80	VENOUS COMPL NEC-UNSPEC
671.81	VENOUS COMPL NEC-DELIVER
671.82	VEN COMP NEC-DELIV W P/P
672.00	PUERPERAL PYREXIA-UNSPEC
672.02	PUERP PYREXIA-DEL W P/P
673.00	OB AIR EMBOLISM-UNSPEC
673.01	OB AIR EMBOLISM-DELIVER
673.02	OB AIR EMBOL-DELIV W P/P
673.10	AMNIOTIC EMBOLISM-UNSPEC
673.11	AMNIOTIC EMBOLISM-DELIV
673.12	AMNIOT EMBOL-DELIV W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
673.30	OB PYEMIC EMBOL-UNSPEC
673.31	OB PYEMIC EMBOL-DELIVER
673.32	OB PYEM EMBOL-DEL W P/P
673.33	OB PYEMIC EMBOL-ANTEPART
673.34	OB PYEMIC EMBOL-POSTPART
673.80	PULMON EMBOL NEC-UNSP
673.81	PULMON EMBOL NEC-DELIVER
673.82	PULM EMBOL NEC-DEL W P/P
674.00	PUERP CEREBVASC DIS-UNSP
674.01	PUERP CEREBVAS DIS-DELIV
674.02	CEREBVAS DIS-DELIV W P/P
674.10	DISRUPT C-SECT WND-UNSP
674.12	DISRUPT C-SECT-DEL W P/P
674.20	DISRUPT PERINEUM-UNSPEC
674.22	DISRUPT PERIN-DEL W P/P
674.30	OB SURG COMPL NEC-UNSPEC
674.32	OB SURG COMPL-DEL W P/P
674.40	PLACENTAL POLYP-UNSPEC
674.42	PLACENT POLYP-DEL W P/P
674.50	PERIPART CARDIOMY-UNSPEC
674.51	PERIPARTUM CARDIOMY-DEL
674.52	PERIPART CARD DEL W P/P
674.80	PUERP COMPL NEC-UNSPEC
674.82	PUERP COMP NEC-DEL W P/P
674.90	PUERP COMPL NOS-UNSPEC
674.92	PUERP COMP NOS-DEL W P/P
675.00	INFECT NIPPLE PREG-UNSP
675.01	INFECT NIPPLE-DELIVERED
675.02	INFECT NIPPLE-DEL W P/P
675.10	BREAST ABSCESS PREG-UNSPEC
675.11	BREAST ABSCESS-DELIVERED
675.12	BREAST ABSCESS-DEL W P/P
675.20	MASTITIS IN PREG-UNSPEC
675.21	MASTITIS-DELIVERED
675.22	MASTITIS-DELIV W P/P
675.80	BREAST INF PREG NEC-UNSPEC
675.81	BREAST INFECT NEC-DELIV
675.82	BREAST INF NEC-DEL W P/P
675.90	BREAST INF PREG NOS-UNSP
675.91	BREAST INFECT NOS-DELIV
675.92	BREAST INF NOS-DEL W P/P
676.00	RETRACT NIPPLE PREG-UNSP
676.01	RETRACTED NIPPLE-DELIV
676.02	RETRACT NIPPLE-DEL W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
676.03	RETRACT NIPPLE-ANTEPART
676.04	RETRACT NIPPLE-POSTPART
676.10	CRACKED NIPPLE PREG-UNSP
676.11	CRACKED NIPPLE-DELIV
676.12	CRACKED NIPPLE-DEL W P/P
676.13	CRACKED NIPPLE-ANTEPART
676.14	CRACKED NIPPLE-POSTPART
676.20	BREAST ENGORGE-UNSPEC
676.21	BREAST ENGORGE-DELIV
676.22	BREAST ENGORGE-DEL W P/P
676.23	BREAST ENGORGE-ANTEPART
676.24	BREAST ENGORGE-POSTPART
676.30	BREAST DIS PREG NEC-UNSP
676.31	BREAST DIS NEC-DELIV
676.32	BREAST DIS NEC-DEL W P/P
676.33	BREAST DIS NEC-ANTEPART
676.34	BREAST DIS NEC-POSTPART
676.40	LACTATION FAIL-UNSPEC
676.41	LACTATION FAIL-DELIVERED
676.42	LACTATION FAIL-DEL W P/P
676.43	LACTATION FAILURE-ANTEPART
676.44	LACTATION FAILURE-POSTPART
676.50	SUPPR LACTATION-UNSPEC
676.51	SUPPR LACTATION-DELIVER
676.52	SUPPR LACTAT-DEL W P/P
676.53	SUPPR LACTATION-ANTEPAR
676.54	SUPPR LACTATION-POSTPART
676.60	GALACTORRHEA PREG-UNSPEC
676.61	GALACTORRHEA-DELIVERED
676.62	GALACTORRHEA-DEL W P/P
676.63	GALACTORRHEA-ANTEPARTUM
676.64	GALACTORRHEA-POSTPARTUM
676.80	LACTATION DIS NEC-UNSPEC
676.81	LACTATION DIS NEC-DELIV
676.82	LACTAT DIS NEC-DEL W P/P
676.83	LACTAT DIS NEC-ANTEPART
676.84	LACTAT DIS NEC-POSTPART
676.90	LACTATION DIS NOS-UNSPEC
676.91	LACTATION DIS NOS-DELIV
676.92	LACTAT DIS NOS-DEL W P/P
676.93	LACTAT DIS NOS-ANTEPART
676.94	LACTAT DIS NOS-POSTPART
677	LATE EFFECT Cmplcatn PREG

Table 7.03 Venous Thromboembolism (VTE)	
Code	Shortened Description
415.11	IATROGEN PULM EMB/INFARC
415.19	PULM EMBOL/INFARCT NEC
451.11	FEMORAL VEIN PHLEBITIS
451.19	DEEP PHLEBITIS-LEG NEC
451.2	THROMBOPHLEBITIS LEG NOS
451.81	ILIAC THROMBOPHLEBITIS
451.9	THROMBOPHLEBITIS NOS
453.40	DVT/EMBLSM LOWER EXT NOS
453.41	DVT/EMB PROX LOWER EXT
453.87	AC EMBL THORAC VEIN NEC
453.89	AC EMBOLISM VEINS NEC
453.9	VENOUS THROMBOSIS NOS

Last Updated: Version 3.2

Table 7.04 Obstetrics – VTE	
Code	Shortened Description
634.60	SPON ABORT W EMBOL-UNSPEC
634.61	SPON ABORT W EMBOL-INC
634.62	SPON ABORT W EMBOL-COMP
635.60	LEGAL ABORT W EMBOL-UNSPEC
635.61	LEGAL ABORT W EMBOL-INC
635.62	LEGAL ABORT W EMBOL-COMP
636.60	ILLEG AB W EMBOLISM-UNSPEC
636.61	ILLEG AB W EMBOLISM-INC
636.62	ILLEG AB W EMBOLISM-COMP
637.60	AB NOS W EMBOLISM-UNSP
637.61	AB NOS W EMBOLISM-INC
637.62	AB NOS W EMBOLISM-COMP
638.6	ATTEMP ABORT W EMBOLISM
639.6	POSTABORTION EMBOLISM
671.30	DEEP THROMB ANTEPAR-UNSPEC
671.31	DEEP THROM ANTEPAR-DELIV
671.33	DEEP VEIN THROMB-ANTEPAR
671.40	DEEP THROMB POSTPAR-UNSPEC
671.42	THROMB POSTPAR-DEL W P/P
671.44	DEEP VEIN THROMB-POSTPAR
671.50	THROMBOSIS NEC PREG-UNSPEC
671.51	THROMBOSIS NEC-DELIV
671.52	THROMB NEC-DELIV W P/P
671.53	THROMBOSIS NEC-ANTEPART
671.54	THROMBOSIS NEC-POSTPART

Table 7.04 Obstetrics – VTE	
Code	Shortened Description
671.90	VEN COMPL PREG NOS-UNSPEC
671.91	VENOUS COMPL NOS-DELIVER
671.92	VEN COMP NOS-DELIV W P/P
671.93	VENOUS COMPL NOS-ANTEPAR
671.94	VENOUS COMPL NOS-POSTPAR
673.20	OB PULM EMBOL NOS-UNSPEC
673.21	PULM EMBOL NOS-DELIV
673.22	PULM EMBOL NOS-DELIV W P/P
673.23	PULM EMBOL NOS-ANTEPART
673.24	PULM EMBOL NOS-POSTPART

Last Updated: Version 3.2

Table 8.1 Ischemic Stroke (STK)	
Code	Shortened Description
433.01	OCL BSLR ART W INFRCT
433.10	OCL CRTD ART WO INFRCT
433.11	OCL CRTD ART W INFRCT
433.21	OCL VRTB ART W INFRCT
433.31	OCL MLT BI ART W INFRCT
433.81	OCL SPCF ART W INFRCT
433.91	OCL ART NOS W INFRCT
434.00	CRBL THRMBS WO INFRCT
434.01	CRBL THRMBS W INFRCT
434.11	CRBL EMBLSM W INFRCT
434.91	CRBL ART OCL NOS W INFRC
436	CVA

Last Updated: Version 3.2

Table 8.2 Hemorrhagic Stroke (STK)	
Code	Shortened Description
430	SUBARACHNOID HEMORRHAGE
431	INTRACEREBRAL HEMORRHAGE

Last Updated: Version 3.2

Table 12.1 Diabetes	
Code	Shortened Description
250.00	DMII WO CMP NT ST UNCINTR
250.01	DMI WO CMP NT ST UNCINTRL
250.02	DMII WO CMP UNCINTRLD
250.03	DMI WO CMP UNCINTRLD
250.10	DMII KETO NT ST UNCINTRLD

Table 12.1 Diabetes	
Code	Shortened Description
250.11	DMI KETO NT ST UNCNTRLD
250.12	DMII KETOACD UNCONTROLD
250.13	DMI KETOACD UNCONTROLD
250.20	DMII HPRSM NT ST UNCNTRL
250.21	DMI HPRSM NT ST UNCNTRLD
250.22	DMII HPROSMLR UNCONTROLD
250.23	DMI HPROSMLR UNCONTROLD
250.30	DMII O CM NT ST UNCNTRLD
250.31	DMI O CM NT ST UNCNTRLD
250.32	DMII OTH COMA UNCONTROLD
250.33	DMI OTH COMA UNCONTROLD
250.40	DMII RENL NT ST UNCNTRLD
250.41	DMI RENL NT ST UNCNTRLD
250.42	DMII RENAL UNCNTRLD
250.43	DMI RENAL UNCNTRLD
250.50	DMII OPHTH NT ST UNCNTRL
250.51	DMI OPHTH NT ST UNCNTRLD
250.52	DMII OPHTH UNCNTRLD
250.53	DMI OPHTH UNCNTRLD
250.60	DMII NEURO NT ST UNCNTRL
250.61	DMI NEURO NT ST UNCNTRLD
250.62	DMII NEURO UNCNTRLD
250.63	DMI NEURO UNCNTRLD
250.70	DMII CIRC NT ST UNCNTRLD
250.71	DMI CIRC NT ST UNCNTRLD
250.72	DMII CIRC UNCNTRLD
250.73	DMI CIRC UNCNTRLD
250.80	DMII OTH NT ST UNCNTRLD
250.81	DMI OTH NT ST UNCNTRLD
250.82	DMII OTH UNCNTRLD
250.83	DMI OTH UNCNTRLD
250.90	DMII UNSPF NT ST UNCNTRL
250.91	DMI UNSPF NT ST UNCNTRLD
250.92	DMII UNSPF UNCNTRLD
250.93	DMI UNSPF UNCNTRLD
357.2	NEUROPATHY IN DIABETES
362.0	DIABETIC RETINOPATHY NOS
366.41	DIABETIC CATARACT
648.00	DIABETES IN PREG-UNSPEC
648.01	DIABETES-DELIVERED
648.02	DIABETES-DELIVERED W P/P
648.03	DIABETES-ANTEPARTUM
648.04	DIABETES-POSTPARTUM

Table 12.2 End Stage Renal Disease (ESRD)	
Code	Shortened Description
585.6	END STAGE RENAL DISEASE

Table 12.3 Pregnancy	
Code	Shortened Description
640.00	THREATENED ABORT-UNSPEC
640.03	THREATEN ABORT-ANTEPART
640.90	HEMORR EARLY PREG-UNSPEC
640.93	HEM EARLY PREG-ANTEPART
641.00	PLACENTA PREVIA-UNSPEC
641.03	PLACENTA PREVIA-ANTEPART
641.10	PLACENTA PREV HEM-UNSPEC
641.11	PLACENTA PREV HEM-DELIV
641.13	PLACEN PREV HEM-ANTEPART
641.20	PREM SEPAR PLACEN-UNSPEC
641.23	PREM SEPAR PLAC-ANTEPART
641.80	ANTEPART HEM NEC-UNSPEC
641.83	ANTEPART HEM NEC-ANTEPAR
641.90	ANTEPART HEM NOS-UNSPEC
641.93	ANTEPART HEM NOS-ANTEPAR
642.00	ESSEN HYPERTEN PREG-UNSP
642.03	ESSEN HYPERTEN-ANTEPART
642.10	RENAL HYPERTEN PREG-UNSP
642.20	OLD HYPERTEN PREG-UNSPEC
642.23	OLD HYPERTEN NEC-ANTEPAR
642.30	TRANS HYPERTEN PREG-UNSP
642.33	TRANS HYPERTEN-ANTEPART
642.40	MILD/NOS PREECLAMP-UNSP
642.43	MILD/NOS PREECLAMP-ANTEP
642.50	SEVERE PREECLAMP-UNSPEC
642.53	SEV PREECLAMP-ANTEPARTUM
642.60	ECLAMPSIA-UNSPECIFIED
642.63	ECLAMPSIA-ANTEPARTUM
642.70	TOX W OLD HYPERTEN-UNSP
642.73	TOX W OLD HYPER-ANTEPART
642.90	HYPERTEN PREG NOS-UNSPEC
642.93	HYPERTENS NOS-ANTEPARTUM
643.00	MILD HYPEREM GRAV-UNSPEC
643.03	MILD HYPEREMESIS-ANTEPAR
643.10	HYPEREM W METAB DIS-UNSP
643.13	HYPEREM W METAB-ANTEPART
643.20	LATE VOMIT OF PREG-UNSP

Table 12.3 Pregnancy	
Code	Shortened Description
643.23	LATE VOMIT PREG-ANTEPART
643.80	VOMIT COMPL PREG-UNSPEC
643.83	VOMIT COMPL PREG-ANTEPAR
643.90	VOMIT OF PREG NOS-UNSPEC
643.93	VOMIT OF PG NOS-ANTEPART
644.00	THREAT PREM LABOR-UNSPEC
644.03	THRT PREM LABOR-ANTEPART
644.10	THREAT LABOR NEC-UNSPEC
644.13	THREAT LABOR NEC-ANTEPAR
644.20	EARLY ONSET DELIV-UNSPEC
645.10	POST TERM PREG-UNSP
645.13	POST TERM PREG-ANTEPAR
645.20	PROLONGED PREG-UNSP
645.23	PROLONGED PREG-ANTEPAR
646.00	PAPYRACEOUS FETUS-UNSPEC
646.03	PAPYRACEOUS FET-ANTEPAR
646.10	EDEMA IN PREG-UNSPEC
646.13	EDEMA IN PREG-ANTEPARTUM
646.20	RENAL DIS PREG NOS-UNSP
646.23	RENAL DIS NOS-ANTEPARTUM
646.30	HABITUAL ABORTER-UNSPEC
646.33	HABITUAL ABORT-ANTEPART
646.40	NEURITIS OF PREG-UNSPEC
646.43	NEURITIS OF PREG-ANTEPAR
646.50	BACTERIURIA PREG-UNSPEC
646.53	ASY BACTERIURIA-ANTEPART
646.60	GU INFECT IN PREG-UNSPEC
646.63	GU INFECTION-ANTEPARTUM
646.70	LIVER DIS IN PREG-UNSPEC
646.73	LIVER DISORDER-ANTEPART
646.80	PREG COMPL NEC-UNSPEC
646.83	PREG COMPL NEC-ANTEPART
646.90	PREG COMPL NOS-UNSPEC
646.93	PREG COMPL NOS-ANTEPART
647.00	SYPHILIS IN PREG-UNSPEC
647.03	SYPHILIS-ANTEPARTUM
647.10	GONORRHEA IN PREG-UNSPEC
647.13	GONORRHEA-ANTEPARTUM
647.20	OTHER VD IN PREG-UNSPEC
647.23	OTHER VD-ANTEPARTUM
647.30	TB IN PREG-UNSPECIFIED
647.33	TUBERCULOSIS-ANTEPARTUM
647.40	MALARIA IN PREG-UNSPEC
647.43	MALARIA-ANTEPARTUM
647.50	RUBELLA IN PREG-UNSPEC

Table 12.3 Pregnancy	
Code	Shortened Description
647.53	RUBELLA-ANTEPARTUM
647.60	OTH VIRUS IN PREG-UNSPEC
647.63	OTH VIRAL DIS-ANTEPARTUM
647.80	INF DIS IN PREG NEC-UNSP
647.83	INFECT DIS NEC-ANTEPART
647.90	INFECT IN PREG NOS-UNSP
647.93	INFECT NOS-ANTEPARTUM
648.00	DIABETES IN PREG-UNSPEC
648.03	DIABETES-ANTEPARTUM
648.10	THYROID DYSFUN PREG-UNSP
648.13	THYROID DYSFUNC-ANTEPART
648.20	ANEMIA IN PREG-UNSPEC
648.23	ANEMIA-ANTEPARTUM
648.30	DRUG DEPEND PREG-UNSPEC
648.33	DRUG DEPENDENCE-ANTEPART
648.40	MENTAL DIS PREG-UNSPEC
648.43	MENTAL DISORDER-ANTEPART
648.50	CONGEN CV DIS PREG-UNSP
648.53	CONGEN CV DIS-ANTEPARTUM
648.60	CV DIS NEC PREG-UNSPEC
648.63	CV DIS NEC-ANTEPARTUM
648.70	BONE DISORD IN PREG-UNSP
648.73	BONE DISORDER-ANTEPARTUM
648.80	ABN GLUCOSE IN PREG-UNSP
648.83	ABN GLUCOSE-ANTEPARTUM
648.90	OTH CURR COND PREG-UNSP
648.93	OTH CURR COND-ANTEPARTUM
649.00	TOBACCO USE DISORD-UNSP
649.03	TOBACCO USE DIS-ANTEPART
649.10	OBESITY-UNSPECIFIED
649.13	OBESITY-ANTEPARTUM
649.20	BARIATRIC SURG STAT-UNSP
649.23	BARIATRC SURG STAT-ANTEP
649.30	COAGULATION DEF-UNSPEC
649.33	COAGULATION DEF-ANTEPART
649.40	EPILEPSY-UNSPECIFIED
649.43	EPILEPSY-ANTEPARTUM
649.50	SPOTTING-UNSPECIFIED
649.53	SPOTTING-ANTEPARTUM
649.60	UTERINE SIZE DESCRP-UNSP
649.63	UTERINE SIZE DES-ANTEPAR
651.00	TWIN PREGNANCY-UNSPEC
651.03	TWIN PREGNANCY-ANTEPART
651.10	TRIPLET PREGNANCY-UNSPEC
651.13	TRIPLET PREG-ANTEPARTUM

Table 12.3 Pregnancy

Code	Shortened Description
651.20	QUADRUPLET PREG-UNSPEC
651.23	QUADRUPLET PREG-ANTEPART
651.30	TWINS W FETAL LOSS-UNSP
651.33	TWINS W FETAL LOSS-ANTE
651.40	TRIPLETS W FET LOSS-UNSP
651.43	TRIPLETS W FET LOSS-ANTE
651.50	QUADS W FETAL LOSS-UNSP
651.53	QUADS W FETAL LOSS-ANTE
651.60	MULT GES W FET LOSS-UNSP
651.63	MULT GES W FET LOSS-ANTE
651.70	MUL GEST-FET REDUCT UNSP
651.73	MUL GEST-FET REDUCT ANTE
651.80	MULTI GESTAT NEC-UNSPEC
651.83	MULTI GEST NEC-ANTEPART
651.90	MULTI GESTAT NOS-UNSPEC
651.93	MULTI GEST NOS-ANTEPART
652.00	UNSTABLE LIE-UNSPECIFIED
652.03	UNSTABLE LIE-ANTEPARTUM
652.10	CEPHALIC VERS NOS-UNSPEC
652.13	CEPHAL VERS NOS-ANTEPART
652.20	BREECH PRESENTAT-UNSPEC
652.23	BREECH PRESENT-ANTEPART
652.30	TRANSV/OBLIQ LIE-UNSPEC
652.33	TRANSV/OBLIQ LIE-ANTEPAR
652.40	FACE/BROW PRESENT-UNSPEC
652.43	FACE/BROW PRES-ANTEPART
652.50	HIGH HEAD AT TERM-UNSPEC
652.53	HIGH HEAD TERM-ANTEPART
652.60	MULT GEST MALPRESEN-UNSP
652.63	MULT GES MALPRES-ANTEPAR
652.70	PROLAPSED ARM-UNSPEC
652.73	PROLAPSED ARM-ANTEPART
652.80	MALPOSITION NEC-UNSPEC
652.83	MALPOSITION NEC-ANTEPART
652.90	MALPOSITION NOS-UNSPEC
652.93	MALPOSITION NOS-ANTEPART
653.00	PELVIC DEFORM NOS-UNSPEC
653.03	PELV DEFORM NOS-ANTEPART
653.10	CONTRACT PELV NOS-UNSPEC
653.13	CONTRAC PELV NOS-ANTEPAR
653.20	INLET CONTRACTION-UNSPEC
653.23	INLET CONTRACT-ANTEPART
653.30	OUTLET CONTRACTION-UNSP
653.33	OUTLET CONTRACT-ANTEPART
653.40	FETOPELV DISPROP-UNSPEC

Table 12.3 Pregnancy	
Code	Shortened Description
653.43	FETOPEL DISPROP-ANTEPART
653.50	FETAL DISPROP NOS-UNSPEC
653.53	FETAL DISPRO NOS-ANTEPAR
653.60	HYDROCEPHAL FETUS-UNSPEC
653.63	HYDROCEPH FETUS-ANTEPART
653.70	OTH ABN FET DISPROP-UNSP
653.73	OTH ABN FET DISPRO-ANTEP
653.80	DISPROPORTION NEC-UNSPEC
653.83	DISPROPOR NEC-ANTEPARTUM
653.90	DISPROPORTION NOS-UNSPEC
653.93	DISPROPOR NOS-ANTEPARTUM
654.00	CONG ABN UTER PREG-UNSP
654.03	CONGEN ABN UTER-ANTEPART
654.10	UTER TUMOR IN PREG-UNSP
654.13	UTERINE TUMOR-ANTEPARTUM
654.20	PREV C-DELIVERY UNSPEC
654.23	PREV C-DELIVERY-ANTEPART
654.30	RETROVERT UTERUS-UNSPEC
654.33	RETROVERT UTER-ANTEPART
654.40	ABN GRAV UTERUS NEC-UNSP
654.43	ABN UTERUS NEC-ANTEPART
654.50	CERV INCOMPET PREG-UNSP
654.53	CERV INCOMPET-ANTEPARTUM
654.60	ABN CERVIX NEC PREG-UNSP
654.63	ABN CERVIX NEC-ANTEPART
654.70	ABN VAGINA IN PREG-UNSP
654.73	ABNORM VAGINA-ANTEPARTUM
654.80	ABN VULVA IN PREG-UNSPEC
654.83	ABNORMAL VULVA-ANTEPART
654.90	ABN PEL NEC IN PREG-UNSP
654.93	ABN PELV ORG NEC-ANTEPAR
655.00	FETAL CNS MALFORM-UNSPEC
655.03	FETAL CNS MALFOR-ANTEPAR
655.10	FETAL CHROMOS ABN-UNSPEC
655.13	FET CHROMO ABN-ANTEPART
655.20	FAMIL HEREDIT DIS-UNSPEC
655.23	FAMIL HERED DIS-ANTEPART
655.30	FET DAMG D/T VIRUS-UNSP
655.33	FET DAMG D/T VIRUS-ANTEP
655.40	FET DAMG D/T DIS-UNSPEC
655.43	FET DAMG D/T DIS-ANTEPAR
655.50	FETAL DAMG D/T DRUG-UNSP
655.53	FET DAMG D/T DRUG-ANTEPA
655.60	RADIAT FETAL DAMAG-UNSP
655.63	RADIAT FET DAMAG-ANTEPAR

Table 12.3 Pregnancy	
Code	Shortened Description
655.70	DECREASE FETL MOVMT UNSP
655.73	DEC FETAL MOVMT ANTEPART
655.80	FETAL ABNORM NEC-UNSPEC
655.83	FETAL ABNORM NEC-ANTEPAR
655.90	FETAL ABNORM NOS-UNSPEC
655.93	FETAL ABNORM NOS-ANTEPAR
656.00	FETAL-MATERNAL HEM-UNSP
656.03	FETAL-MATERN HEM-ANTEPAR
656.10	RH ISOIMMUNIZATION-UNSP
656.13	RH ISOIMMUNIZAT-ANTEPART
656.20	ABO ISOIMMUNIZATION-UNSP
656.23	ABO ISOIMMUNIZAT-ANTEPAR
656.30	FETAL DISTRESS-UNSPEC
656.33	FETAL DISTRESS-ANTEPART
656.40	INTRAUTERINE DEATH-UNSP
656.43	INTRAUTER DEATH-ANTEPART
656.50	POOR FETAL GROWTH-UNSPEC
656.53	POOR FETAL GRTH-ANTEPART
656.60	EXCESS FETAL GRTH-UNSPEC
656.63	EXCESS FET GRTH-ANTEPART
656.70	OTH PLACENT COND-UNSPEC
656.73	OTH PLACENT COND-ANTEPAR
656.80	FET/PLAC PROB NEC-UNSPEC
656.83	FET/PLAC PROB NEC-ANTEPA
656.90	FET/PLAC PROB NOS-UNSPEC
656.93	FET/PLAC PROB NOS-ANTEPA
657.0	POLYHYDRAMNIOS-UNSPEC
657.3	POLYHYDRAMNIOS-ANTEPART
658.00	OLIGOHYDRAMNIOS-UNSPEC
658.03	OLIGOHYDRAMNIOS-ANTEPAR
658.10	PREM RUPT MEMBRAN-UNSPEC
658.13	PREM RUPT MEMB-ANTEPART
658.20	PROLONG RUPT MEMB-UNSPEC
658.23	PROLONG RUP MEMB-ANTEPAR
658.30	ARTIFIC RUPT MEMBR-UNSP
658.33	ARTIF RUPT MEMB-ANTEPART
658.40	AMNIOTIC INFECTION-UNSP
658.43	AMNIOTIC INFECT-ANTEPART
658.80	AMNIOTIC PROB NEC-UNSPEC
658.83	AMNION PROB NEC-ANTEPART
658.90	AMNIOTIC PROB NOS-UNSPEC
658.93	AMNION PROB NOS-ANTEPART
659.00	FAIL MECHAN INDUCT-UNSP
659.03	FAIL MECH INDUCT-ANTEPAR
659.10	FAIL INDUCTION NOS-UNSP

Table 12.3 Pregnancy	
Code	Shortened Description
659.13	FAIL INDUCT NOS-ANTEPART
659.20	PYREXIA IN LABOR-UNSPEC
659.23	PYREXIA IN LABOR-ANTEPAR
659.30	SEPTICEMIA IN LABOR-UNSP
659.33	SEPTICEM IN LABOR-ANTEPA
659.40	GRAND MULTIPARITY-UNSPEC
659.43	GRAND MULTIPARITY-ANTEPA
659.50	ELDERLY PRIMIGRAVID-UNSP
659.53	ELDER PRIMIGRAVID-ANTEPA
659.60	ELDERLY MULTIGRAVIDA-UNS
659.63	ELDERLY MULTIGRAVD-ANTEP
659.70	ABN FTL HRT RATE/RHY-UNS
659.73	ABN FTL HRT RATE/RHY-ANT
659.80	COMPLIC LABOR NEC-UNSP
659.83	COMPL LABOR NEC-ANTEPART
659.90	COMPLIC LABOR NOS-UNSP
659.93	COMPL LABOR NOS-ANTEPART
660.00	OBSTRUCT/FET MALPOS-UNSP
660.03	OBSTRUC/FET MALPOS-ANTEP
660.10	BONY PELV OBSTRUC-UNSPEC
660.13	BONY PELV OBSTRUC-ANTEPA
660.20	ABN PELV TISS OBSTR-UNSP
660.23	ABN PELV TIS OBSTR-ANTEP
660.30	PERSIST OCCIPITPOST-UNSP
660.33	PERSIST OCCIPTPOST-ANTEP
660.40	SHOULDER DYSTOCIA-UNSPEC
660.43	SHOULDER DYSTOCIA-ANTEPA
660.50	LOCKED TWINS-UNSPECIFIED
660.53	LOCKED TWINS-ANTEPARTUM
660.60	FAIL TRIAL LAB NOS-UNSP
660.63	FAIL TRIAL LAB NOS-ANTEP
660.70	FAILE6D FORCEP NOS-UNSPEC
660.73	FAIL FORCEPS NOS-ANTEPAR
660.80	OBSTRUC LABOR NEC-UNSPEC
660.83	OBSTRUC LABOR NEC-ANTEPA
660.90	OBSTRUC LABOR NOS-UNSPEC
660.93	OBSTRUC LABOR NOS-ANTEPA
661.00	PRIM UTERINE INERT-UNSP
661.03	PRIM UTER INERT-ANTEPART
661.10	SEC UTERINE INERT-UNSPEC
661.13	SEC UTERINE INERT-ANTEPA
661.20	UTERINE INERTIA NEC-UNSP
661.23	UTERINE INERT NEC-ANTEPA
661.30	PRECIPITATE LABOR-UNSPEC
661.33	PRECIPITATE LABOR-ANTEPA

Table 12.3 Pregnancy	
Code	Shortened Description
661.40	UTER DYSTOCIA NOS-UNSPEC
661.43	UTER DYSTOCIA NOS-ANTEPA
661.90	ABNORMAL LABOR NOS-UNSP
661.93	ABNORM LABOR NOS-ANTEPAR
662.00	PROLONGED 1ST STAGE-UNSP
662.03	PROLONG 1ST STAGE-ANTEPA
662.10	PROLONGED LABOR NOS-UNSP
662.13	PROLONG LABOR NOS-ANTEPA
662.20	PROLONGED 2ND STAGE-UNSP
662.23	PROLONG 2ND STAGE-ANTEPA
662.30	DELAY DEL 2ND TWIN-UNSP
662.33	DELAY DEL 2 TWIN-ANTEPAR
663.00	CORD PROLAPSE-UNSPEC
663.03	CORD PROLAPSE-ANTEPARTUM
663.10	CORD COMPRESS NEC-UNSPEC
663.13	CORD COMPRES NEC-ANTEPAR
663.20	CORD AROUND NECK-UNSPEC
663.23	CORD AROUND NECK-ANTEPAR
663.30	CORD ENTANGLE NEC-UNSPEC
663.33	CORD ENTANGL NEC-ANTEPAR
663.40	SHORT CORD-UNSPECIFIED
663.43	SHORT CORD-ANTEPARTUM
663.50	VASA PREVIA-UNSPECIFIED
663.53	VASA PREVIA-ANTEPARTUM
663.60	VASC LESION CORD-UNSPEC
663.63	VASC LESION CORD-ANTEPAR
663.80	CORD COMPLICAT NEC-UNSP
663.83	CORD COMPL NEC-ANTEPART
663.90	CORD COMPLICAT NOS-UNSP
663.93	CORD COMPL NOS-ANTEPART
664.00	DEL W 1 DEG LACERAT-UNSP
664.10	DEL W 2 DEG LACERAT-UNSP
664.20	DEL W 3 DEG LACERAT-UNSP
664.30	DEL W 4 DEG LACERAT-UNSP
664.40	OB PERINEAL LAC NOS-UNSP
664.50	OB PERINEAL HEMATOM-UNSP
664.60	ANAL SPHINCTER TEAR NOS
664.80	OB PERIN TRAUM NEC-UNSP
664.90	OB PERIN TRAUM NOS-UNSP
665.00	PRELABOR RUPT UTER-UNSP
665.03	PRELAB RUPT UTER-ANTEPAR
665.10	RUPTURE UTERUS NOS-UNSP
665.20	INVERSION OF UTERUS-UNSP
665.30	LACERAT OF CERVIX-UNSPEC
665.40	HIGH VAGINAL LACER-UNSP

Table 12.3 Pregnancy	
Code	Shortened Description
665.50	OB INJ PELV ORG NEC-UNSP
665.60	DAMAGE TO PELVIC JT-UNSP
665.70	OB PELVIC HEMATOMA-UNSP
665.80	OB TRAUMA NEC-UNSPEC
665.83	OB TRAUMA NEC-ANTEPARTUM
665.90	OB TRAUMA NOS-UNSPEC
665.93	OB TRAUMA NOS-ANTEPARTUM
666.00	THIRD-STAGE HEM-UNSPEC
668.00	PULM COMPL IN DEL-UNSP
668.03	PULM COMPLICAT-ANTEPART
668.10	HEART COMPL IN DEL-UNSP
668.13	HEART COMPLIC-ANTEPART
668.20	CNS COMPL LABOR/DEL-UNSP
668.23	CNS COMPL IN DEL-ANTEPAR
668.80	ANESTH COMP DEL NEC-UNSP
668.83	ANESTH COMPL ANTEPARTUM
668.90	ANESTH COMP DEL NOS-UNSP
668.93	ANESTH COMPL-ANTEPARTUM
669.00	MATERNAL DISTRESS-UNSPEC
669.03	MATERN DISTRESS-ANTEPAR
669.10	OBSTETRIC SHOCK-UNSPEC
669.13	OBSTETRIC SHOCK-ANTEPAR
669.20	MATERN HYPOTENS SYN-UNSP
669.23	MATERN HYPOTENS-ANTEPAR
669.30	AC REN FAIL W DELIV-UNSP
671.00	VARIC VEIN LEG PREG-UNSP
671.03	VARIC VEIN LEG-ANTEPART
671.10	VARIC VULVA PREG-UNSPEC
671.13	VARICOSE VULVA-ANTEPART
671.20	THROMBOPHLEB PREG-UNSPEC
671.23	THROMBOPHLEBIT-ANTEPART
671.30	DEEP THROMB ANTEPAR-UNSP
671.33	DEEP VEIN THROMB-ANTEPAR
671.40	DEEP THROMB POSTPAR-UNSP
671.50	THROMBOSIS NEC PREG-UNSP
671.53	THROMBOSIS NEC-ANTEPART
671.80	VEN COMPL PREG NEC-UNSP
671.83	VENOUS COMPL NEC-ANTEPAR
671.90	VEN COMPL PREG NOS-UNSP
671.93	VENOUS COMPL NOS-ANTEPAR
673.10	AMNIOTIC EMBOLISM-UNSPEC
673.13	AMNIOTIC EMBOL-ANTEPART
673.23	PULM EMBOL NOS-ANTEPART
673.30	OB PYEMIC EMBOL-UNSPEC
673.33	OB PYEMIC EMBOL-ANTEPART

Table 12.3 Pregnancy	
Code	Shortened Description
673.80	OB PULMON EMBOL NEC-UNSP
673.83	PULMON EMBOL NEC-ANTEPAR
674.03	CEREBROVASC DIS-ANTEPART
674.40	PLACENTAL POLYP-UNSPEC
674.50	PERIPART CARDIOMY-UNSPEC
674.53	PERIPARTUM CARD-ANTEPART
674.80	PUERP COMPL NEC-UNSPEC
674.90	PUERP COMPL NOS-UNSPEC
675.00	INFECT NIPPLE PREG-UNSP
675.03	INFECT NIPPLE-ANTEPARTUM
675.10	BREAST ABSCESS PREG-UNSP
675.13	BREAST ABSCESS-ANTEPART
675.20	MASTITIS IN PREG-UNSPEC
675.23	MASTITIS-ANTEPARTUM
675.80	BREAST INF PREG NEC-UNSP
675.83	BREAST INF NEC-ANTEPART
675.90	BREAST INF PREG NOS-UNSP
675.93	BREAST INF NOS-ANTEPART
676.00	RETRACT NIPPLE PREG-UNSP
676.03	RETRACT NIPPLE-ANTEPART
676.10	CRACKED NIPPLE PREG-UNSP
676.13	CRACKED NIPPLE-ANTEPART
676.20	BREAST ENGORGE-UNSPEC
676.23	BREAST ENGORGE-ANTEPART
676.30	BREAST DIS PREG NEC-UNSP
676.33	BREAST DIS NEC-ANTEPART
676.40	LACTATION FAIL-UNSPEC
676.43	LACTATION FAIL-ANTEPART
676.50	SUPPR LACTATION-UNSPEC
676.53	SUPPR LACTATION-ANTEPAR
676.60	GALACTORRHEA PREG-UNSPEC
676.63	GALACTORRHEA-ANTEPARTUM
676.80	LACTATION DIS NEC-UNSPEC
676.83	LACTAT DIS NEC-ANTEPART
676.90	LACTATION DIS NOS-UNSPEC
676.93	LACTAT DIS NOS-ANTEPART
677	LATE EFFCT CMPLCATN PREG
V22.0	SUPERVIS NORMAL 1ST PREG
V22.1	SUPERVIS OTH NORMAL PREG
V22.2	PREG STATE, INCIDENTAL
V23.0	PREG W HX OF INFERTILITY
V23.1	PREG W HX-TROPHOBLAS DIS
V23.2	PREG W HX OF ABORTION
V23.3	GRAND MULTIPARITY
V23.41	PREG W HX PRE-TERM LABOR

Table 12.3 Pregnancy	
Code	Shortened Description
V23.49	PREG W POOR OBS HX NEC
V23.5	PREG W POOR REPRODUCT HX
V23.7	INSUFFICNT PRENATAL CARE
V23.81	SUPRV ELDERLY PRIMIGRAV
V23.82	SUPRV ELDERLY MULTIGRAV
V23.83	SUPRV YOUNG PRIMIGRAVIDA
V23.84	SUPRV YOUNG MULTIGRAVIDA
V23.89	SUPRV HIGH-RISK PREG NEC
V23.9	SUPRV HIGH-RISK PREG NOS

Last Updated: Version 3.2

Table 12.4 Asthma	
Code	Shortened Description
493.00	EXTRINSIC ASTHMA NOS
493.01	EXT ASTHMA W STATUS ASTH
493.02	EXT ASTHMA W(ACUTE) EXAC
493.10	INTRINSIC ASTHMA NOS
493.11	INT ASTHMA W STATUS ASTH
493.12	INT ASTHMA W (AC) EXAC
493.20	CHRONIC OBST ASTHMA NOS
493.21	CH OB ASTHMA W STAT ASTH
493.22	CH OBST ASTH W (AC) EXAC
493.81	EXERCSE IND BRONCHOSPASM
493.82	COUGH VARIANT ASTHMA
493.90	ASTHMA NOS
493.91	ASTHMA W STATUS ASTHMA T
493.92	ASTHMA NOS W (AC) EXAC

Last Updated: Version 3.2

Table 12.5 Chronic Obstructive Pulmonary Disease (COPD)	
Code	Shortened Description
491.0	SIMPLE CHR BRONCHITIS
491.1	MUCOPURUL CHR BRONCHITIS
491.20	OBST CHR BRONC W/O EXAC
491.21	OBS CHR BRONC W(AC) EXAC
491.22	OBS CHR BRONC W AC BRONC
491.8	CHRONIC BRONCHITIS NEC
491.9	CHRONIC BRONCHITIS NOS
492.0	EMPHYSEMATOUS BLEB
492.8	EMPHYSEMA NEC
496	CHR AIRWAY OBSTRUCT NEC

Table 12.6 Nephrotic Syndrome	
Code	Shortened Description
581.0	NEPHROTIC SYN, PROLIFER
581.1	EPIMEMBRANOUS NEPHRITIS
581.2	MEMBRANOPROLIF NEPHROSIS
581.3	MINIMAL CHANGE NEPHROSIS
581.81	NEPHROTIC SYN IN OTH DIS
581.89	NEPHROTIC SYNDROME NEC
581.9	NEPHROTIC SYNDROME NOS

Last Updated: Version 3.2

Table 12.7 Asplenia	
Code	Shortened Description
282.6	SICKLE CELL DISEASE NOS
746.87	MALPOSITION OF HEART
759.0	ANOMALIES OF SPLEEN

Last Updated: Version 3.2

Table 12.8 Human Immunodeficiency Virus (HIV)	
Code	Shortened Description
042	HUMAN IMMUNO VIRUS DIS
079.53	HIV-2 INFECTION OTH DIS
V08	ASYMP HIV INFECTN STATUS

Last Update: Version 3.2

Table 12.9 Influenza	
Code	Shortened Description
99.52	INFLUENZA VACCINATION

Racial/ethnic disparities for 26 performance measures using 2009 clinical data warehouse

We used SAS procedure Glimmix to account for the correlation/clustering effect of patients within hospital. Random intercepts were used for each hospital. The model included only race-related dummy variables. The between-hospital effects were estimated by including hospital proportion of patients for each minority group in the model. For details of the methodology see Hausmann et al. "Between-hospital and within-hospital racial and ethnic disparities in community-acquired pneumonia treatment and mortality." *Medical Care* 2009; 47(9): 1009-1017

We excluded patients whose race/ethnicity was missing or "unable to determine" in the the dataset.

Race/ethnicity	Num	Den	Percent	Partitioning within- and between-hospital effects			
				Unadjusted OR (95%CI)	Within-hospital effects OR (95%CI)	Between-hospital effects OR (95%CI)	Re-scaled between-hospital effects OR (95%CI)
AMI1: Aspirin at arrival							
Caucasian	247,145	251,158	98.4	ref.	ref.	ref.	ref.
African-American	36,868	37,747	97.7	0.68 (0.63-0.73)	0.72 (0.66-0.79)	0.83 (0.60-1.15)	0.96 (0.89-1.03)
Hispanic	26,561	27,316	97.2	0.57 (0.53-0.62)	1.06 (0.93-1.20)	0.60 (0.45-0.81)	0.86 (0.79-0.94)
Asian/Pacific Islander	7,346	7,472	98.3	0.95 (0.79-1.13)	1.02 (0.82-1.26)	2.38 (1.05-5.42)	1.08 (1.00-1.16)
Native American	1,074	1,087	98.8	1.34 (0.78-2.32)	1.72 (0.92-3.20)	0.29 (0.07-1.18)	0.90 (0.81-1.01)
AMI2: Aspirin at discharge							
Caucasian	305,754	310,489	98.5	ref.	ref.	ref.	ref.
African-American	39,545	40,591	97.4	0.59 (0.55-0.63)	0.69 (0.64-0.75)	0.71 (0.48-1.04)	0.92 (0.85-1.01)
Hispanic	27,791	28,805	96.5	0.42 (0.40-0.45)	1.00 (0.89-1.12)	0.35 (0.25-0.49)	0.74 (0.67-0.82)
Asian/Pacific Islander	7,694	7,854	98.0	0.74 (0.64-0.87)	0.91 (0.75-1.10)	1.99 (0.77-5.11)	1.06 (0.98-1.16)
Native American	1,908	1,935	98.6	1.09 (0.75-1.60)	1.33 (0.84-2.10)	0.59 (0.10-3.55)	0.96 (0.83-1.11)
AMI3: ACEI or ARB for LVSD							
Caucasian	54,767	57,482	95.3	ref.	ref.	ref.	ref.
African-American	8,642	9,024	95.8	1.12 (1.01-1.25)	1.19 (1.05-1.36)	1.03 (0.72-1.47)	1.01 (0.93-1.09)
Hispanic	5,591	5,896	94.8	0.91 (0.80-1.03)	1.25 (1.06-1.49)	0.59 (0.43-0.81)	0.86 (0.78-0.94)
Asian/Pacific Islander	1,302	1,372	94.9	0.92 (0.72-1.18)	0.94 (0.71-1.25)	1.11 (0.45-2.69)	1.01 (0.93-1.09)
Native American	371	393	94.4	0.84 (0.54-1.29)	0.98 (0.60-1.58)	0.36 (0.06-2.23)	0.92 (0.79-1.07)
AMI4: Smoking cessation counseling							
Caucasian	103,977	104,611	99.4	ref.	ref.	ref.	ref.
African-American	16,611	16,741	99.2	0.78 (0.64-0.94)	0.86 (0.66-1.07)	0.88 (0.44-1.76)	0.97 (0.83-1.14)
Hispanic	7,671	7,757	98.9	0.54 (0.43-0.68)	1.07 (0.76-1.51)	0.32 (0.17-0.59)	0.72 (0.60-0.86)

Asian/Pacific Islander	1,720	1,747	98.5	0.39 (0.26-0.57)	0.59 (0.35-0.99)	0.26 (0.06-1.16)	0.88 (0.77-1.01)
Native American	753	767	98.2	0.33 (0.19-0.56)	0.92 (0.39-2.18)	0.01 (0.00-0.05)	0.68 (0.58-0.79)

AMI5: Beta-blocker at discharge

Caucasian	298,954	304,013	98.3	ref.	ref.	ref.	ref.
African-American	39,112	40,008	97.8	0.74 (0.69-0.79)	0.95 (0.87-1.03)	0.60 (0.41-0.87)	0.89 (0.81-0.97)
Hispanic	27,331	28,382	96.3	0.44 (0.41-0.47)	1.06 (0.95-1.19)	0.31 (0.22-0.44)	0.72 (0.65-0.79)
Asian/Pacific Islander	7,602	7,738	98.2	0.95 (0.80-1.12)	1.08 (0.89-1.32)	2.37 (0.92-6.08)	1.08 (0.99-1.18)
Native American	1,841	1,882	97.8	0.76 (0.56-1.04)	1.20 (0.81-1.78)	0.06 (0.02-0.22)	0.80 (0.72-0.89)

AMI7A: Fibrinolytic within 30 minutes

Caucasian	651	1,169	55.7	ref.	ref.	ref.	ref.
African-American	73	157	46.5	0.69 (0.50-0.97)	0.78 (0.52-1.17)	0.61 (0.27-1.41)	0.89 (0.74-1.08)
Hispanic	190	417	45.6	0.67 (0.53-0.83)	0.92 (0.61-1.39)	0.58 (0.36-0.91)	0.85 (0.75-0.97)
Asian/Pacific Islander	36	61	59.0	1.15 (0.68-1.93)	1.16 (0.62-2.17)	1.22 (0.20-7.31)	1.02 (0.87-1.20)
Native American	1	3	33.3	0.40 (0.04-4.40)	0.67 (0.04-11.74)	0.01 (0.00-14.42)	0.69 (0.39-1.24)

AMI8A: PCI within 90 minutes

Caucasian	38,044	43,171	88.1	ref.	ref.	ref.	ref.
African-American	3,448	4,234	81.4	0.59 (0.54-0.64)	0.65 (0.59-0.71)	0.27 (0.19-0.40)	0.74 (0.68-0.81)
Hispanic	3,297	3,936	83.8	0.70 (0.64-0.76)	0.84 (0.75-0.94)	0.29 (0.20-0.43)	0.70 (0.62-0.78)
Asian/Pacific Islander	1,079	1,237	87.2	0.92 (0.78-1.09)	1.10 (0.90-1.33)	0.43 (0.17-1.07)	0.93 (0.85-1.01)
Native American	160	189	84.7	0.74 (0.50-1.11)	0.90 (0.59-1.38)	0.07 (0.00-1.25)	0.81 (0.64-1.02)

HF1: Discharge instructions

Caucasian	357,746	414,742	86.3	ref.	ref.	ref.	ref.
African-American	124,070	143,689	86.3	1.01 (0.99-1.03)	1.02 (0.99-1.04)	1.46 (1.10-1.95)	1.09 (1.02-1.17)
Hispanic	44,786	51,690	86.6	1.03 (1.01-1.06)	0.97 (0.93-1.01)	1.74 (1.28-2.36)	1.17 (1.07-1.28)
Asian/Pacific Islander	9,895	11,375	87.0	1.07 (1.01-1.13)	0.95 (0.88-1.01)	2.06 (0.96-4.46)	1.07 (1.00-1.14)
Native American	2,351	3,083	76.3	0.51 (0.47-0.56)	1.10 (0.97-1.25)	0.07 (0.04-0.12)	0.81 (0.77-0.85)

HF2: Evaluation of LV function

Caucasian	521,142	535,940	97.2	ref.	ref.	ref.	ref.
African-American	159,661	163,219	97.8	1.27 (1.23-1.32)	1.06 (1.01-1.11)	4.11 (2.78-6.09)	1.38 (1.26-1.52)
Hispanic	55,388	57,714	96.0	0.68 (0.65-0.71)	0.93 (0.86-1.01)	0.84 (0.56-1.27)	0.95 (0.85-1.07)
Asian/Pacific Islander	12,720	13,004	97.8	1.27 (1.13-1.43)	1.04 (0.89-1.21)	9.18 (3.11-27.08)	1.22 (1.11-1.35)
Native American	3,201	3,416	93.7	0.42 (0.37-0.49)	1.03 (0.81-1.32)	0.07 (0.03-0.14)	0.81 (0.76-0.86)

HF3: ACEI or ARB for LVSD

Caucasian	145,067	155,808	93.1	ref.	ref.	ref.	ref.
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African-American	66,217	69,597	95.1	1.45 (1.39-1.51)	1.52 (1.45-1.60)	1.38 (1.07-1.77)	1.08 (1.02-1.14)
Hispanic	18,769	20,068	93.5	1.07 (1.01-1.14)	1.23 (1.13-1.33)	1.24 (0.95-1.62)	1.06 (0.98-1.15)
Asian/Pacific Islander	3,777	3,962	95.3	1.51 (1.30-1.75)	1.40 (1.17-1.66)	2.42 (1.22-4.83)	1.08 (1.02-1.15)
Native American	1,173	1,278	91.8	0.83 (0.68-1.01)	1.18 (0.90-1.55)	0.24 (0.13-0.45)	0.89 (0.85-0.94)
HF4: Smoking cessation counseling							
Caucasian	76,177	77,858	97.8	ref.	ref.	ref.	ref.
African-American	44,071	44,760	98.5	1.41 (1.29-1.54)	1.29 (1.14-1.47)	3.46 (2.16-5.54)	1.33 (1.19-1.48)
Hispanic	7,273	7,423	98.0	1.07 (0.90-1.27)	1.07 (0.85-1.36)	1.11 (0.66-1.89)	1.03 (0.89-1.20)
Asian/Pacific Islander	1,375	1,413	97.3	0.80 (0.58-1.11)	0.77 (0.50-1.20)	1.83 (0.50-6.67)	1.06 (0.94-1.19)
Native American	692	732	94.5	0.38 (0.28-0.53)	0.82 (0.46-1.43)	0.04 (0.01-0.10)	0.77 (0.71-0.83)
PN2: Pneumococcal vaccination given or screened for							
Caucasian	378,259	408,034	92.7	ref.	ref.	ref.	ref.
African-American	34,705	39,186	88.6	0.61 (0.59-0.63)	0.72 (0.69-0.75)	0.48 (0.37-0.62)	0.84 (0.79-0.90)
Hispanic	24,135	28,528	84.6	0.43 (0.42-0.45)	0.75 (0.71-0.79)	0.25 (0.19-0.33)	0.67 (0.62-0.73)
Asian/Pacific Islander	8,804	9,900	88.9	0.63 (0.59-0.67)	0.70 (0.65-0.77)	0.91 (0.45-1.82)	0.99 (0.93-1.06)
Native American	2,310	2,640	87.5	0.55 (0.49-0.62)	0.91 (0.76-1.09)	0.29 (0.18-0.49)	0.91 (0.87-0.94)
PN3A: Initial blood culture within 24 hours - ICU only							
Caucasian	78,108	82,387	94.8	ref.	ref.	ref.	ref.
African-American	12,551	13,078	96.0	1.30 (1.19-1.43)	1.12 (1.00-1.25)	2.53 (1.84-3.49)	1.24 (1.15-1.33)
Hispanic	7,338	7,863	93.3	0.77 (0.70-0.84)	1.09 (0.95-1.26)	0.70 (0.51-0.96)	0.90 (0.82-0.99)
Asian/Pacific Islander	2,199	2,271	96.8	1.67 (1.32-2.12)	1.17 (0.90-1.52)	16.33 (6.12-43.59)	1.29 (1.18-1.40)
Native American	776	846	91.7	0.61 (0.47-0.78)	1.37 (0.90-2.09)	0.28 (0.14-0.56)	0.90 (0.86-0.95)
PN3B: Initial blood culture before first antibiotic dose - ED only							
Caucasian	361,802	380,083	95.2	ref.	ref.	ref.	ref.
African-American	56,541	60,416	93.6	0.74 (0.71-0.76)	0.87 (0.83-0.90)	0.64 (0.52-0.77)	0.90 (0.86-0.94)
Hispanic	34,169	37,132	92.0	0.58 (0.56-0.61)	0.90 (0.85-0.95)	0.33 (0.27-0.40)	0.73 (0.69-0.77)
Asian/Pacific Islander	9,388	9,889	94.9	0.95 (0.86-1.04)	1.05 (0.94-1.16)	1.50 (0.89-2.51)	1.04 (0.99-1.09)
Native American	3,058	3,402	89.9	0.45 (0.40-0.50)	1.00 (0.83-1.21)	0.19 (0.13-0.27)	0.88 (0.85-0.90)
PN4: Smoking cessation counseling							
Caucasian	153,759	158,876	96.8	ref.	ref.	ref.	ref.
African-American	30,859	31,710	97.3	1.21 (1.12-1.30)	1.03 (0.93-1.13)	4.02 (2.65-6.12)	1.38 (1.25-1.52)
Hispanic	9,885	10,230	96.6	0.95 (0.85-1.07)	0.97 (0.83-1.12)	1.20 (0.76-1.90)	1.05 (0.92-1.21)
Asian/Pacific Islander	1,689	1,759	96.0	0.80 (0.63-1.02)	0.92 (0.67-1.26)	1.66 (0.53-5.16)	1.05 (0.94-1.16)
Native American	1,722	1,940	88.8	0.26 (0.23-0.30)	0.74 (0.57-0.96)	0.03 (0.01-0.06)	0.75 (0.71-0.80)

PN5C: First antibiotic dose within 6 hours							
Caucasian	402,180	421,893	95.3	ref.	ref.	ref.	ref.
African-American	60,989	66,036	92.4	0.59 (0.57-0.61)	0.80 (0.77-0.83)	0.31 (0.26-0.37)	0.77 (0.74-0.80)
Hispanic	35,145	39,094	89.9	0.44 (0.42-0.45)	0.91 (0.86-0.96)	0.18 (0.15-0.21)	0.61 (0.58-0.64)
Asian/Pacific Islander	9,399	9,865	95.3	0.99 (0.90-1.09)	1.05 (0.94-1.17)	1.55 (0.97-2.50)	1.04 (1.00-1.09)
Native American	3,430	3,752	91.4	0.52 (0.47-0.59)	1.12 (0.92-1.35)	0.20 (0.14-0.28)	0.88 (0.86-0.90)
PN6: Antibiotic selection consistent with guidelines							
Caucasian	254,116	279,291	91.0	ref.	ref.	ref.	ref.
African-American	35,023	38,201	91.7	1.09 (1.05-1.13)	1.24 (1.19-1.30)	0.94 (0.80-1.11)	0.99 (0.95-1.02)
Hispanic	25,350	28,361	89.4	0.83 (0.80-0.87)	1.18 (1.11-1.25)	0.60 (0.51-0.71)	0.86 (0.82-0.90)
Asian/Pacific Islander	6,093	6,689	91.1	1.01 (0.93-1.10)	1.00 (0.91-1.11)	1.18 (0.77-1.82)	1.02 (0.98-1.05)
Native American	2,570	2,922	88.0	0.72 (0.65-0.81)	1.06 (0.89-1.26)	0.51 (0.37-0.70)	0.95 (0.92-0.97)
PN7: Influenza vaccination given or screened for							
Caucasian	266,920	293,208	91.0	ref.	ref.	ref.	ref.
African-American	31,910	37,007	86.2	0.62 (0.60-0.64)	0.72 (0.69-0.75)	0.43 (0.34-0.55)	0.82 (0.78-0.87)
Hispanic	18,854	22,505	83.8	0.51 (0.49-0.53)	0.78 (0.73-0.82)	0.27 (0.21-0.34)	0.68 (0.64-0.73)
Asian/Pacific Islander	5,702	6,539	87.2	0.67 (0.62-0.72)	0.81 (0.74-0.89)	0.70 (0.37-1.32)	0.97 (0.92-1.03)
Native American	1,927	2,405	80.1	0.40 (0.36-0.44)	0.96 (0.81-1.14)	0.12 (0.08-0.19)	0.85 (0.82-0.88)
SCIP1: Antibiotic within 1 hour before incision or 2 hours for vancomycin or quinolone							
Caucasian	827,536	860,067	96.2	ref.	ref.	ref.	ref.
African-American	95,484	99,527	95.9	0.93 (0.90-0.96)	0.97 (0.93-1.01)	0.99 (0.78-1.25)	1.00 (0.95-1.05)
Hispanic	60,439	64,806	93.3	0.54 (0.53-0.56)	1.01 (0.96-1.07)	0.31 (0.25-0.39)	0.71 (0.67-0.76)
Asian/Pacific Islander	14,743	15,282	96.5	1.08 (0.99-1.17)	0.99 (0.90-1.10)	2.31 (1.24-4.31)	1.08 (1.02-1.14)
Native American	4,037	4,325	93.3	0.55 (0.49-0.62)	0.87 (0.74-1.03)	0.16 (0.09-0.29)	0.86 (0.83-0.91)
SCIP2: Prophylactic antibiotic consistent with guidelines							
Caucasian	848,411	868,974	97.6	ref.	ref.	ref.	ref.
African-American	97,576	100,464	97.1	0.82 (0.79-0.85)	0.96 (0.91-1.00)	0.55 (0.44-0.68)	0.87 (0.83-0.91)
Hispanic	62,778	64,991	96.6	0.69 (0.66-0.72)	1.03 (0.97-1.10)	0.43 (0.35-0.54)	0.79 (0.74-0.83)
Asian/Pacific Islander	15,171	15,547	97.6	0.98 (0.88-1.08)	1.10 (0.98-1.24)	0.98 (0.56-1.72)	1.00 (0.95-1.05)
Native American	4,230	4,360	97.0	0.79 (0.66-0.94)	0.97 (0.78-1.20)	0.32 (0.18-0.57)	0.91 (0.87-0.96)
SCIP3: Prophylactic ABX discontinued within 24 h. of surgery end time or 24 h. for cardiac surgery							
Caucasian	766,551	819,715	93.5	ref.	ref.	ref.	ref.
African-American	87,315	94,468	92.4	0.85 (0.83-0.87)	0.96 (0.93-0.99)	0.55 (0.46-0.67)	0.87 (0.83-0.91)
Hispanic	54,461	61,420	88.7	0.54 (0.53-0.56)	1.03 (0.99-1.07)	0.36 (0.30-0.44)	0.75 (0.71-0.79)

Asian/Pacific Islander	13,218	14,358	92.1	0.80 (0.76-0.85)	1.04 (0.97-1.12)	0.56 (0.34-0.93)	0.95 (0.91-0.99)
Native American	3,812	4,103	92.9	0.91 (0.81-1.02)	0.96 (0.84-1.11)	0.63 (0.36-1.10)	0.96 (0.92-1.01)

SCIP4: Controlled 6 AM postoperative serum glucose - cardiac surgery

Caucasian	134,822	144,908	93.0	ref.	ref.	ref.	ref.
African-American	10,742	11,722	91.6	0.82 (0.77-0.88)	0.91 (0.85-0.98)	0.53 (0.38-0.74)	0.86 (0.80-0.93)
Hispanic	11,031	12,520	88.1	0.55 (0.52-0.59)	0.74 (0.68-0.81)	0.40 (0.29-0.56)	0.77 (0.70-0.84)
Asian/Pacific Islander	3,437	3,773	91.1	0.77 (0.68-0.86)	0.86 (0.75-0.98)	0.50 (0.23-1.08)	0.94 (0.88-1.01)
Native American	706	766	92.2	0.88 (0.68-1.15)	0.75 (0.56-1.00)	2.86 (0.23-35.20)	1.09 (0.89-1.33)

SCIP6: appropriate hair removal

Caucasian	1,222,603	1,232,305	99.2	ref.	ref.	ref.	ref.
African-American	149,984	151,395	99.1	0.84 (0.80-0.89)	1.03 (0.96-1.10)	0.86 (0.55-1.35)	0.97 (0.87-1.07)
Hispanic	95,326	97,273	98.0	0.39 (0.37-0.41)	0.92 (0.84-1.00)	0.18 (0.12-0.28)	0.61 (0.54-0.69)
Asian/Pacific Islander	23,368	23,575	99.1	0.90 (0.78-1.03)	0.98 (0.84-1.15)	1.40 (0.44-4.53)	1.03 (0.93-1.15)
Native American	6,390	6,543	97.7	0.33 (0.28-0.39)	1.05 (0.78-1.42)	0.07 (0.03-0.20)	0.81 (0.75-0.88)

SCIPCARD2: Perioperative period beta blocker

Caucasian	327,860	359,462	91.2	ref.	ref.	ref.	ref.
African-American	34,505	38,004	90.8	0.95 (0.92-0.99)	1.01 (0.96-1.05)	0.78 (0.59-1.01)	0.94 (0.89-1.00)
Hispanic	17,805	20,128	88.5	0.74 (0.71-0.77)	0.96 (0.91-1.03)	0.52 (0.39-0.70)	0.83 (0.76-0.90)
Asian/Pacific Islander	5,128	5,770	88.9	0.77 (0.71-0.84)	0.87 (0.79-0.96)	0.98 (0.48-2.02)	1.00 (0.94-1.07)
Native American	1,312	1,493	87.9	0.70 (0.60-0.82)	0.84 (0.70-1.01)	0.24 (0.10-0.54)	0.89 (0.83-0.95)

SCIPVTE1: Recommended VTE prophylaxis ordered during admission

Caucasian	343,547	367,129	93.6	ref.	ref.	ref.	ref.
African-American	49,075	52,658	93.2	0.94 (0.91-0.98)	0.92 (0.88-0.96)	1.02 (0.79-1.33)	1.01 (0.95-1.07)
Hispanic	27,199	30,224	90.0	0.62 (0.59-0.64)	0.79 (0.75-0.84)	0.38 (0.29-0.50)	0.76 (0.70-0.82)
Asian/Pacific Islander	7,406	8,195	90.4	0.64 (0.60-0.69)	0.78 (0.71-0.86)	0.45 (0.23-0.87)	0.93 (0.88-0.99)
Native American	1,999	2,208	90.5	0.66 (0.57-0.76)	0.98 (0.81-1.19)	0.14 (0.07-0.27)	0.85 (0.81-0.90)

SCIPVTE2: Received VTE prophylaxis within 24 hours prior to or after surgery

Caucasian	334,443	365,471	91.5	ref.	ref.	ref.	ref.
African-American	47,804	52,220	91.5	1.00 (0.97-1.04)	1.00 (0.96-1.04)	1.02 (0.81-1.28)	1.00 (0.95-1.06)
Hispanic	26,376	29,811	88.5	0.71 (0.69-0.74)	0.85 (0.81-0.90)	0.54 (0.43-0.69)	0.84 (0.78-0.90)
Asian/Pacific Islander	7,241	8,126	89.1	0.76 (0.71-0.81)	0.86 (0.79-0.94)	0.56 (0.31-1.00)	0.95 (0.90-1.00)
Native American	1,942	2,183	89.0	0.75 (0.65-0.86)	1.06 (0.89-1.26)	0.18 (0.10-0.34)	0.87 (0.83-0.92)

NATIONAL QUALITY FORUM

Measure Evaluation 4.1 December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the [evaluation criteria](#) are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all **yellow highlighted** areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all **pink** highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met

C = Completely (unquestionably demonstrated to meet the criterion)

P = Partially (demonstrated to partially meet the criterion)

M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)

N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)

NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) NQF Review #: 0218	NQF Project: Surgery Endorsement Maintenance 2010
MEASURE DESCRIPTIVE INFORMATION	
De.1 Measure Title: Surgery Patients Who Received Appropriate Venous Thromboembolism (VTE) Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery End Time	
De.2 Brief description of measure: Percentage of surgery patients who received appropriate Venous Thromboembolism (VTE) Prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time	
1.1-2 Type of Measure: Process	
De.3 If included in a composite or paired with another measure, please identify composite or paired measure The paired measure is #0217:Surgery Patients with Recommended Venous Thromboembolism Prophylaxis Ordered	
De.4 National Priority Partners Priority Area: Safety	
De.5 IOM Quality Domain: Safety, Timeliness	
De.6 Consumer Care Need: Staying healthy	

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
<p>A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. <i>Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.</i></p> <p>A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)? Yes</p> <p>A.2 Indicate if Proprietary Measure (as defined in measure steward agreement):</p> <p>A.3 Measure Steward Agreement: Government entity and in the public domain - no agreement necessary</p> <p>A.4 Measure Steward Agreement attached:</p>	<p>A</p> <p>Y <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and	B

update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	Y <input type="checkbox"/> N <input type="checkbox"/>
C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ► Purpose: Public reporting, Internal quality improvement Accountability, Payment incentive, Accreditation	C Y <input type="checkbox"/> N <input type="checkbox"/>
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1 Testing: Yes, fully developed and tested D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures? Yes	D Y <input type="checkbox"/> N <input type="checkbox"/>
(for NQF staff use) Have all conditions for consideration been met? Staff Notes to Steward (if submission returned):	Met Y <input type="checkbox"/> N <input type="checkbox"/>
Staff Notes to Reviewers (issues or questions regarding any criteria):	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria) 1a. High Impact	Eval Ratin g
(for NQF staff use) Specific NPP goal:	
1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers 1a.2 1a.3 Summary of Evidence of High Impact: here are over 30 million surgeries performed in the United States and prevention of perioperative venous thromboembolism is a major aspect of clinical care for the surgical patient. One study of patients discharged from 944 acute care hospitals in America found that postoperative VTE was the second most common medical complication and the third most common cause of excess mortality(1). Randomized clinical trials provide evidence that primary thromboprophylaxis reduces DVT and PE(2). PE is the most common preventable cause of patient death(3). Without prophylaxis, DVT occurs in almost 20% of major surgeries(4). Orthopedic patients experience a higher rate at 40- 60% (5) 1a.4 Citations for Evidence of High Impact: 1. Zhan C, Miller MR. Excess length of stay, charges, and mortality attributable to medical injuries during hospitalization. JAMA 2003; 290: 1868-1874. 2. Geerts WH, Pineo GJ, Heit JA, et al. Prevention of venous thromboembolism: the Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy. Chest 2004; 126:338S-400S. 3. Shojania KG, Duncan BW, McDonald KM, et al. Making health care safer: a critical analysis of patient safety practices; evidence report/technology assessment No. 43. AHRQ Publication No. 01-E058, Rockville, MD. Agency for Healthcare Research and Quality. Available at: www.ahrq.gov/clinic/ptsafety/. 4. Heit JA, Silverstein MD, Mohr DN, et al. Risk factors for deep vein thrombosis and pulmonary embolism: a population-based case-control study. Arch Intern Med 2000; 160: 809-815. 5. Geerts, WJ, Bergqvist D, Pineo GF, et al. Prevention of venous thromboembolism: American College of Chest Physicians evidence-based clinical practice guidelines (8th	1a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>

<p>edition). Chest 2008; 133: 381-453.</p>	
<p>1b. Opportunity for Improvement</p> <p>1b.1 Benefits (improvements in quality) envisioned by use of this measure: Routine administration of VTE prophylaxis reduces adverse patient outcomes while also decreasing costs in the surgical patient. Process measures for VTE prophylaxis will prompt facilities and clinicians to evaluate the systems in place to ensure timeliness of administration, according to guidelines.</p> <p>1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers: Hospital reported data from the clinical data warehouse for the first quarter in 2010 shows that facilities are providing recommended timely VTE prophylaxis 92.5% of the time. A national sample of 19,497 Medicare patients undergoing surgery in US hospitals during the first quarter of 2005 received recommended timely VTE prophylaxis 69.79% of the time.</p> <p>1b.3 Citations for data on performance gap: In the first quarter of 2010, from 3533 reporting hospitals: Denominator: 139,095, Numerator 128,718.</p> <p>1b.4 Summary of Data on disparities by population group: No disparities are publicly reported for this measure at this time. Performance on most of the core measures is relatively high. For many of the core measures there are slight disparities but the absolute differences in performance by race are relatively small. Hispanics had lower rates for surgical care.</p> <p>1b.5 Citations for data on Disparities: An attachment is provided that provides disparities information.</p>	<p>1b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>1c. Outcome or Evidence to Support Measure Focus</p> <p>1c.1 Relationship to Outcomes (For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population): Routine administration of VTE prophylaxis reduces adverse patient outcomes while also decreasing costs in the surgical patient. Without prophylaxis, the incidence of VTE is about 10-40% in general surgery patients and between 40 and 60% in orthopedic surgery patients.</p> <p>1c.2-3. Type of Evidence: Evidence-based guideline, Randomized controlled trial, Expert opinion, Systematic synthesis of research, Meta-analysis</p> <p>1c.4 Summary of Evidence (as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome): ACCP recommends that every hospital develop a formal strategy that addresses the prevention of VTE (Grade 1A). They recommend against the use of aspirin alone as thromboprophylaxis for any patient group (Grade 1A), and recommend that mechanical methods of thromboprophylaxis be used primarily for patients at high bleeding risk (Grade 1A) or possibly as an adjunct to anticoagulant thromboprophylaxis (Grade 2A).</p> <p>1c.5 Rating of strength/quality of evidence (also provide narrative description of the rating and by whom): Grade 1A to Grade 2C; See above for rating of each recommendation</p> <p>1c.6 Method for rating evidence: Strong recommendation, high-quality evidence, Grade 1A; Strong recommendation, moderate-quality evidence, Grade 1B; Strong recommendation, low or very low-quality evidence, Grade 1C; Weak recommendation, high-quality evidence, Grade 2A; Weak recommendation, moderate-quality evidence, Grade 2B; Weak recommendation, low or very low-quality evidence, Grade 2C. *The guideline developers use the wording recommend for strong (Grade 1) recommendations and suggest for weak (Grade 2) recommendations.</p> <p>1c.7 Summary of Controversy/Contradictory Evidence: A guideline on the prevention of symptomatic PE</p>	<p>1c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

developed by the American Academy of Orthopedic Surgeons recommended monoprohylaxis with aspirin for patients undergoing total hip or knee arthroplasty. That recommendation does not agree with the ACCP guidelines on VTE prevention.

- 1c.8 Citations for Evidence (other than guidelines):**
1. Mismetti P, Laporte S, Darmon JY, et al. Meta-analysis of low molecular weight heparin in the prevention of venous thromboembolism in general surgery. *Br J Surg.* 2001;88:913-930.
 2. Freedman KB, Brookenthal KR, Fitzgerald RH, Jr, et al. A meta-analysis of thromboembolic prophylaxis following elective total hip arthroplasty. *J Bone Joint Surg.* 2000;82-A:929-938.
 3. Handoll HH, Farrar MJ, McBirnie J, et al. Heparin, low-molecular-weight heparin and physical methods for preventing deep vein thrombosis and pulmonary embolism following surgery for hip fractures. *Cochrane Database Syst Rev.* 2002(4):CD000305.
 4. Zurawska U, Parasuraman S, Goldhaber SZ. Prevention of pulmonary embolism in general surgery patients. *Circulation.* 2007;115:e302-e307.
 5. Agnelli G, Bergqvist D, Cohen AT, et al. Randomized clinical trial of postoperative fondaparinux versus perioperative dalteparin for prevention of venous thromboembolism in high-risk abdominal surgery. *Br J Surg.* 2005;92:1212-1220.
 6. McKenna GS, Karthikesalingam A, Walsh SR, et al. Prevention of venous thromboembolism: improving practice in surgical patients. *Int J Surg.* 2009;7:50-53.
 7. Iorio A, Agnelli G. Low-molecular-weight and unfractionated heparin for prevention of venous thromboembolism in neurosurgery: a meta-analysis. *Arch Intern Med.* 2000;160:2327-2332. PMID: 10927730.
 8. Goldhaber SZ, Dunn K, MacDougall RC. New onset of venous thromboembolism among hospitalized patients at Brigham and Women's Hospital is caused more often by prophylaxis failure than by withholding treatment. *Chest.* 2000;118:1680-1684. PMID: 11115458.
 9. O'Donnell M, Weitz JI. Thromboprophylaxis in surgical patients. *Can J Surg.* 2003; 46(2): 129-135. PMID: 12691354.
 10. Janku GV, Paiement GD, Green HD. Prevention of venous thromboembolism in orthopaedics in the United States. *Clin Ortho & Related Research.* 1996:313-321. PMID: 8998892.
 11. Koch A, Bouges S, Ziegler S, et al. Low molecular weight heparin and unfractionated heparin in thrombosis prophylaxis after major surgical intervention: update of previous meta-analyses. *Br J Surg.* 1997;84:750-759. PMID: 9189079.
 12. Palmer AJ, Schramm W, Kirchhof B, et al. Low molecular weight heparin and unfractionated heparin for prevention of thrombo-embolism in general surgery: a meta-analysis of randomised clinical trials. *Haemostasis.* 1997;27:65-74. PMID: 9212354.
 13. Bratzler DW, Raskob GE, Murray CK, et al. Underuse of venous thromboembolism prophylaxis for general surgery patients: physician practices in the community hospital setting. *Arch Intern Med.* 1998;158:1909-1912. PMID: 9759687.
 14. Vanek VW. Meta-analysis of effectiveness of intermittent pneumatic compression devices with a comparison of thigh-high to knee-high sleeves. *American Surgeon.* 1998;64:1050-1058. PMID: 9798767.
 15. Heit JA, Silverstein MD, Mohr DN, Petterson TM, O'Fallon WM, Melton LJ, III. Risk factors for deep vein thrombosis and pulmonary embolism: a population-based case-control study. *Arch Intern Med* 2000;160:809-815.
 16. Hull RD, Brant RF, Pineo GF, et al. Preoperative vs postoperative initiation of low-molecular-weight heparin prophylaxis against venous thromboembolism in patients undergoing elective hip replacement. *Arch Intern Med.* 1999;159:137-141. PMID: 9927095.
 17. Raskob GE, Hirsh J. Controversies in timing of the first dose of anticoagulant prophylaxis against venous thromboembolism after major orthopedic surgery. *Chest.* 2003 Dec;124(6 Suppl):3795-385S.

1c.9 Quote the Specific guideline recommendation (including guideline number and/or page number):
 For patients receiving LMWH as thromboprophylaxis in major orthopedic surgery, ACCP recommends starting either preoperatively or postoperatively (Grade 1A). For patients receiving fondaparinux as thromboprophylaxis in major orthopedic surgery, they recommend starting either 6 to 8 h after surgery or the next day (Grade 1A).

1c.10 Clinical Practice Guideline Citation: Geerts, WJ, Bergqvist D, Pineo GF, et al. Prevention of venous thromboembolism: American College of Chest Physicians evidence-based clinical practice guidelines (8th edition). *Chest* 2008; 133: 381-453.

1c.11 National Guideline Clearinghouse or other URL:

<p>http://www.guideline.gov/summary/summary.aspx?doc_id=12956&nbr=006665&string=vte+AND+prophylaxis</p> <p>1c.12 Rating of strength of recommendation (also provide narrative description of the rating and by whom): Grade 1 recommendations are strong and indicate that the benefits do or do not outweigh risks, burden, and costs. Grade 2 suggestions imply that individual patient values may lead to different choices.</p> <p>1c.13 Method for rating strength of recommendation (If different from USPSTF system, also describe rating and how it relates to USPSTF): The USPSTF assigns letter grades only. This guideline uses levels of evidence as well as grades of recommendations.</p> <p>1c.14 Rationale for using this guideline over others: This guideline is exhaustive in its coverage of studies supporting the recommendations with over 700 references cited.</p>	
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Importance to Measure and Report</i>?</p>	<p>1</p>
<p>Steering Committee: Was the threshold criterion, <i>Importance to Measure and Report</i>, met? Rationale:</p>	<p>1 Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES</p>	
<p>Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)</p>	<p>Eval Ratin g</p>
<p>2a. MEASURE SPECIFICATIONS</p>	
<p>S.1 Do you have a web page where current detailed measure specifications can be obtained? S.2 If yes, provide web page URL:</p> <p>2a. Precisely Specified</p>	
<p>2a.1 Numerator Statement (Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome): Surgery patients who received appropriate VTE prophylaxis within 24 hours prior to Surgical Incision Time to 24 hours after Surgery End Time</p> <p>2a.2 Numerator Time Window (The time period in which cases are eligible for inclusion in the numerator): 24 hours prior to incision to 24 hours after surgery end time</p> <p>2a.3 Numerator Details (All information required to collect/calculate the numerator, including all codes, logic, and definitions): Data Elements: Anesthesia Type VTE Prophylaxis VTE Timely</p>	
<p>2a.4 Denominator Statement (Brief, text description of the denominator - target population being measured): All selected surgery patients</p>	
<p>2a.5 Target population gender: Female, Male 2a.6 Target population age range: Patients 18 years of age and older</p>	<p>2a- spec s C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2a.7 Denominator Time Window (The time period in which cases are eligible for inclusion in the denominator): Entire inpatient admission</p>	

2a.8 Denominator Details (All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions):

Data Elements:

- Admission Date
- Anesthesia End Date
- Anesthesia End Time
- Anesthesia Start Date
- Anesthesia Start Time
- Birthdate
- Clinical Trial
- Discharge Date
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- Laparoscope
- Perioperative Death
- Preadmission Warfarin
- Reason for Not Administering VTE Prophylaxis

2a.9 Denominator Exclusions (Brief text description of exclusions from the target population): Data Elements

- Clinical Trial
- Laparoscope
- Perioperative Death
- Preadmission Warfarin
- Reason for Not Administering VTE Prophylaxis

2a.10 Denominator Exclusion Details (All information required to collect exclusions to the denominator, including all codes, logic, and definitions):

Excluded Populations:

- Patients less than 18 years of age
- Patients who have a Length of Stay greater than 120 days
- Burn patients (as defined in Appendix A, Table 5.14 for ICD-9-CM codes)
- Patients with procedures performed entirely by Laparoscope
- Patients enrolled in clinical trials
- Patients who are on warfarin prior to admission
- Patients whose ICD-9-CM principal procedure occurred prior to the date of admission
- Patients whose total surgery time is less than or equal to 60 minutes
- Patients with hospital length of stay less than or equal to 3 calendar days
- Patients who expire perioperatively
- Patients with reasons for not administering both mechanical and pharmacological prophylaxis
- Patients who did not receive VTE Prophylaxis (as defined in the Data Dictionary)

2a.11 Stratification Details/Variables (All information required to stratify the measure including the stratification variables, all codes, logic, and definitions):

- No stratification except by surgery type and those are
- Intracranial Neurosurgery Appendix A, Table 5.17
- General Surgery Appendix A, Table 5.19
- Gynecologic Surgery Appendix A, Table 5.20
- Urologic Surgery Appendix A, Table 5.21
- Elective Total Hip Replacement Appendix A, Table 5.22
- Elective Total Knee Replacement Appendix A, Table 5.23
- Hip Fracture Surgery Appendix A, Table 5.24

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method):

N/A

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion

2a.20 Interpretation of Score: Better quality = Higher score

2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps*):

SCIP- Venous Thromboembolism (VTE)-2: Surgery Patients Who Received Appropriate Venous

Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery

Numerator: Surgery patients who received Venous Thromboembolism (VTE) prophylaxis 24 hours prior to

Anesthesia Start Time to 24 hours after Anesthesia End Time.

Denominator: All selected surgery patients.

Variable Key: Patient Age, Length of Stay (LOS), Surgery Length, Surgery Days

1.Start processing. Run cases that are included in the Surgical Care Improvement Project (SCIP) Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.

2.Calculate Patient Age. The Patient Age, in years, is equal to the Admission Date minus the Birthdate. Use the month and day portion of admission date and birthdate to yield the most accurate age.

3.Check Patient Age

a.If Patient Age is less than 18 years, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

b.If Patient Age is greater than or equal to 18 years, continue processing and proceed to ICD-9-CM Principal Procedure Code.

4.Check ICD-9-CM Principal Procedure Code

a.If the ICD-9-CM Principal Procedure Code is not on Table 5.17, 5.19, 5.20, 5.21, 5.22, 5.23, or 5.24, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.

b.If the ICD-9-CM Principal Procedure Code is on Table 5.17, 5.19, 5.20, 5.21, 5.22, 5.23, or 5.24, continue processing and proceed to ICD-9-CM Principal Diagnosis Code.

5.Check ICD-9-CM Principal Diagnosis Code

a.If the ICD-9-CM Principal Diagnosis Code is on Table 5.14, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

b.If the ICD-9-CM Principal Diagnosis Code is not on Table 5.14, continue processing and proceed to the LOS calculation.

6.Calculate LOS. LOS, in days, is equal to the Discharge Date minus the Admission Date.

7.Check LOS

a.If the LOS is less than or equal to 3 days, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Calculation. Stop processing.

b.If the LOS is greater than 3 days, continue processing and proceed to Laparoscope.

8.Check Laparoscope

a.If Laparoscope is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.If Laparoscope equals 1 or 3, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c.If Laparoscope equals 2, continue processing and proceed to Clinical Trial.

9.Check Clinical Trial

a.If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c.If Clinical Trial equals No, continue processing and proceed to Preadmission Warfarin.

10.Check Preadmission Warfarin

a.If Preadmission Warfarin is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.If Preadmission Warfarin equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c.If Preadmission Warfarin equals No, continue processing and proceed to Anesthesia Start Date.

11.Check Anesthesia Start Date

a.If the Anesthesia Start Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

Specifications Manual for National Hospital Inpatient Quality Measures

Discharges 10-01-10 (4Q10) through 03-31-11 (1Q11) SCIP-VTE-2-13

b.If the Anesthesia Start Date equals Unable To Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

c.If Anesthesia Start Date equals a Non Unable To Determine Value, continue processing and proceed to the Surgery Days calculation.

12.Calculate Surgery Days. Surgery Days, in days, is equal to the Anesthesia Start Date minus the Admission Date.

13.Check Surgery Days

a.If the Surgery Days is less than zero, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

b.If the Surgery Days is greater than or equal to zero, continue processing and proceed to Perioperative Death.

14.Check Perioperative Death

a.If Perioperative Death is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.If Perioperative Death equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c.If Perioperative Death equals No, continue processing and proceed to Anesthesia Start Time.

15.Check Anesthesia Start Time

a.If the Anesthesia Start Time is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.If the Anesthesia Start Time equals Unable to Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

c.If the Anesthesia Start Time equals a Non Unable to Determine Value, continue processing and proceed to Anesthesia End Date.

16.Check Anesthesia End Date

a.If the Anesthesia End Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.If the Anesthesia End Date equals Unable to Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

c.If the Anesthesia End Date equals a Non Unable to Determine Value, continue processing and proceed to Anesthesia End Time.

Specifications Manual for National Hospital Inpatient Quality Measures

Discharges 10-01-10 (4Q10) through 03-31-11 (1Q11) SCIP-VTE-2-14

17.Check Anesthesia End Time

a.If the Anesthesia End Time is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.If the Anesthesia End Time equals Unable to Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

c.If the Anesthesia End Time equals a Non Unable to Determine Value, continue processing and proceed to the Surgery Length calculation.

18.Calculate Surgery Length. Surgery Length, in minutes, is equal to the Anesthesia End Date and Anesthesia End Time minus the Anesthesia Start Date and Anesthesia Start Time.

19.Check Surgery Length

a.If the Surgery Length is less than or equal to 60 minutes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

b.If the Surgery Length is greater than 60 minutes, continue processing proceed to Reason for Not Administering VTE Prophylaxis.

20.Check Reason for Not Administering VTE Prophylaxis

a.If Reason for Not Administering VTE Prophylaxis is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.If Reason for Not Administering VTE Prophylaxis equals 3, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c.If Reason for Not Administering VTE Prophylaxis equals 1, 2, or 4, continue processing and proceed to VTE Prophylaxis.

21.Check VTE Prophylaxis

a.If no values are populated in the VTE grid, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.If VTE Prophylaxis equals A, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.

c.If the VTE grid is populated with any of values 1, 2, 3, 4, 5, 6, 7, or 8, continue processing and proceed to recheck the ICD-9-CM Principal Procedure Code. Note: If VTE Prophylaxis field is populated with an allowable value of 1, 2, 3, 4, 5, 6, 7, or 8 and the corresponding VTE Timely field is Missing, the entire case will be rejected by The Joint Commission and Centers for Medicare and Medicaid Services (CMS) warehouses.

22.Recheck ICD-9-CM Principal Procedure Code

a.If the ICD-9-CM Principal Procedure Code is on Tables 5.17, 5.20, 5.21, 5.22, 5.23, or 5.24, continue processing. Proceed to step 26 and recheck ICD-9-CM Principal Procedure Code for Tables 5.17, 5.20, 5.21, 5.22, 5.23, and 5.24. Do not recheck step 23 and step 25 VTE Prophylaxis or step 24 Reason for Not Administering VTE Prophylaxis for Tables 5.17, 5.20, 5.21, 5.22, 5.23, and 5.24 as steps 23 through 26 check for codes on Table 5.19 only.

b.If the ICD-9-CM Principal Procedure Code is on Table 5.19, continue processing and recheck VTE Prophylaxis.

23.Recheck VTE Prophylaxis only if the ICD-9-CM Principal Procedure Code is on Table 5.19

a.If any VTE Prophylaxis equals 1, 2, or 5, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.

1.If VTE Timely equals Yes for VTE Prophylaxis of 1 or 2 or 5, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

2.If VTE Timely equals No for VTE Prophylaxis of 1 and 2 and 5, continue processing and recheck Reason for Not Administering VTE Prophylaxis.

b.If none of the VTE Prophylaxis equals 1, 2, or 5, continue processing and proceed to recheck Reason for Not Administering VTE Prophylaxis.

24.Recheck Reason for Not Administering VTE Prophylaxis

a.If Reason for Not Administering VTE Prophylaxis equals 1 or 4, continue processing and proceed to Anesthesia Type.

1.If Anesthesia Type is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

2.If Anesthesia Type equals 1 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

3.If Anesthesia Type equals 2 or 3, continue processing and recheck VTE Prophylaxis.

b.If Reason for Not Administering VTE Prophylaxis equals 2, continue processing and recheck VTE Prophylaxis.

25.Recheck VTE Prophylaxis

a.If any VTE Prophylaxis equals 3 or 4, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.

1.If VTE Timely equals Yes for VTE Prophylaxis of 3 or 4, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

2.If VTE Timely equals No for VTE Prophylaxis of 3 and 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b.If none of the VTE Prophylaxis equals 3 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

26.Recheck ICD-9-CM Principal Procedure Code for Tables 5.17, 5.20, 5.21, 5.22, 5.23, and 5.24 only if the ICD-9-CM Principal Procedure Code was not on Table 5.19

a.If the ICD-9-CM Principal Procedure Code is on Table 5.17, continue processing and recheck VTE Prophylaxis.

1.If any VTE Prophylaxis equals 1, 2, or 3, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.

i.If VTE Timely equals Yes for VTE Prophylaxis of 1 or 2 or 3, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

ii.If VTE Timely equals No for VTE Prophylaxis of 1 and 2 and 3, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

2.If none of the VTE Prophylaxis equals 1, 2, or 3, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b.If the ICD-9-CM Principal Procedure Code is on Tables 5.20, 5.21, 5.22, 5.23, or 5.24, continue processing and recheck ICD-9-CM Principal Procedure Code.

27.Recheck ICD-9-CM Principal Procedure Code for Tables 5.20, 5.21, 5.22, 5.23, and 5.24 only if the ICD-9-CM Principal Procedure Code is not on Tables 5.17 or 5.19

a.If the ICD-9-CM Principal Procedure Code is on Table 5.20, continue processing and recheck VTE Prophylaxis.

- 1.If any VTE Prophylaxis equals 1, 2, 3 or 5, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.
 - i.If VTE Timely equals Yes for VTE Prophylaxis of 1 or 2 or 3 or 5, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - ii.If VTE Timely equals No for VTE Prophylaxis of 1 and 2 and 3 and 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- 2.If none of the VTE Prophylaxis equals 1, 2, 3, or 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b.If the ICD-9-CM Principal Procedure Code is on Tables 5.21, 5.22, 5.23, or 5.24, continue processing and recheck ICD-9-CM Principal Procedure Code.

28.Recheck ICD-9-CM Principal Procedure Code for Tables 5.21, 5.22, 5.23, and 5.24 only if the ICD-9-CM Principal Procedure Code is not on Tables 5.17, 5.19, or 5.20

a.If the ICD-9-CM Principal Procedure Code is on Table 5.21, continue processing and recheck VTE Prophylaxis.

- 1.If any VTE Prophylaxis equals 1, 2, 3, 4, or 5, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.
 - i.If VTE Timely equals Yes for VTE Prophylaxis of 1 or 2 or 3 or 4 or 5, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - ii.If VTE Timely equals No for VTE Prophylaxis of 1 and 2 and 3 and 4 and 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- 2.If none of the VTE Prophylaxis equals 1, 2, 3, 4, or 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b.If the ICD-9-CM Principal Procedure Code is on Tables 5.22, 5.23, or 5.24, continue processing and recheck ICD-9-CM Principal Procedure Code.

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 10-01-10 (4Q10) through 03-31-11 (1Q11) SCIP-VTE-2-18

29.Recheck ICD-9-CM Principal Procedure Code for Tables 5.22, 5.23, and 5.24 only if the ICD-9-CM Principal Procedure Code is not on Tables 5.17, 5.19, 5.20, or 5.21

a.If the ICD-9-CM Principal Procedure Code is on Table 5.22, continue processing and recheck VTE Prophylaxis.

b.If the ICD-9-CM Principal Procedure Code is on Tables 5.23 or 5.24, continue processing. Proceed to step 34 and recheck ICD-9-CM Principal Procedure Code for Tables 5.23 and 5.24. Do not recheck steps 30, 31 and 33 VTE Prophylaxis or step 32 Reason for Not Administering VTE Prophylaxis.

30.Recheck VTE Prophylaxis only if the ICD-9-CM Principal Procedure Code is on Table 5.22

a.If any VTE Prophylaxis equals 2, 5, 6, or 8, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.

- 1.If VTE Timely equals Yes for VTE Prophylaxis of 2 or 5 or 6 or 8, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- 2.If VTE Timely equals No for VTE Prophylaxis of 2 and 5 and 6 and 8, continue processing and recheck VTE Prophylaxis.

b.If none of the VTE Prophylaxis equals 2, 5, 6, or 8, continue processing and proceed to recheck VTE Prophylaxis.

31.Recheck VTE Prophylaxis

a.If any VTE Prophylaxis equals 1, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.

- 1.If VTE Timely equals Yes for VTE Prophylaxis of 1, continue processing and check ICD-9-CM Principal or Other Diagnosis Codes.
 - i.If any of the ICD-9-CM Principal or Other Diagnosis Codes is on Table 5.13, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - ii.If none of the ICD-9-CM Principal or Other Diagnosis Codes is on Table 5.13, continue processing and recheck Reason for Not Administering VTE Prophylaxis.
- 2.If VTE Timely equals No for VTE Prophylaxis of 1, continue processing and recheck Reason for Not Administering VTE Prophylaxis.

b.If none of the VTE Prophylaxis equals 1, continue processing and proceed to recheck Reason for Not Administering VTE Prophylaxis.

Specifications Manual for National Hospital Inpatient Quality Measures

Discharges 10-01-10 (4Q10) through 03-31-11 (1Q11) SCIP-VTE-2-19

32.Recheck Reason for Not Administering VTE Prophylaxis

a.If Reason for Not Administering VTE Prophylaxis equals 1 or 4, continue processing and recheck Anesthesia Type.

1.If Anesthesia Type is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

2.If Anesthesia Type equals 1 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

3.If Anesthesia Type equals 2 or 3, continue processing and recheck VTE Prophylaxis.

b.If Reason for Not Administering VTE Prophylaxis equals 2, continue processing and proceed to recheck VTE Prophylaxis.

33.Recheck VTE Prophylaxis

a.If any VTE Prophylaxis equals 3 or 7, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.

1.If VTE Timely equals Yes for VTE Prophylaxis of 3 or 7, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

2.If VTE Timely equals No for VTE Prophylaxis of 3 and 7, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b.If none of the VTE Prophylaxis equals 3 or 7, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

34.Recheck ICD-9-CM Principal Procedure Code for Tables 5.23 and 5.24 only if the ICD-9-CM Principal Procedure Code is not on Tables 5.17, 5.19, 5.20, 5.21, or 5.22

a.If the ICD-9-CM Principal Procedure Code is on Table 5.23, continue processing and recheck VTE Prophylaxis.

1.If Any VTE Prophylaxis is equal to 2, 3, 5, 6, 7, or 8, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.

i.If VTE Timely equals Yes for VTE Prophylaxis of 2 or 3 or 5 or 6 or 7 or 8, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

ii.If VTE Timely equals No for VTE Prophylaxis of 2 and 3 and 5 and 6 and 7 or 8, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

2.If none of the VTE Prophylaxis is equal to 2, 3, 5, 6, 7, or 8, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b.If the ICD-9-CM Principal Procedure Code is on Table 5.24, continue processing and recheck VTE Prophylaxis.

35.Recheck VTE Prophylaxis

a.If any VTE Prophylaxis equals 1, 2, 5, 6, or 8, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.

1.If VTE Timely equals Yes for VTE Prophylaxis of 1 or 2 or 5 or 6 or 8, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

2.If VTE Timely equals No for VTE Prophylaxis of 1 and 2 and 5 and 6 and 8, continue processing and recheck Reason for Not Administering VTE Prophylaxis.

b.If none of the VTE Prophylaxis equals 1, 2, 5, 6, or 8, continue processing and proceed to recheck Reason for Not Administering VTE Prophylaxis.

36.Recheck Reason for Not Administering VTE Prophylaxis

a.If Reason for Not Administering VTE Prophylaxis equals 1 or 4, continue processing and recheck Anesthesia Type.

1.If Anesthesia Type is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

2.If Anesthesia Type equals 1 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

3.If Anesthesia Type equals 2 or 3, continue processing and recheck VTE Prophylaxis.

b.If Reason for Not Administering VTE Prophylaxis equals 2, continue processing and proceed to recheck VTE Prophylaxis.

37.Recheck VTE Prophylaxis

a.If none of the VTE Prophylaxis equals 3, 4, or 7, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b.If any VTE Prophylaxis equals 3, 4, or 7, continue processing and check VTE Timely. Note: When evaluating VTE Timely consider only the values corresponding to the recommended VTE Prophylaxis.

<p>1.If VTE Timely equals Yes for VTE Prophylaxis of 3 or 4 or 7, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing. 2.If VTE Timely equals No for VTE Prophylaxis of 3 or 4 or 7, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.</p>	
<p>2a.22 Describe the method for discriminating performance (e.g., significance testing): Benchmarks are established using the ABC methodology, based on the actual performance of the top facilities. ABC benchmarks identify superior performance and encourage poorer performers to improve. It is data-driven, peer-group performance feedback used to positively affect outcomes.</p>	
<p>2a.23 Sampling (Survey) Methodology <i>If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):</i> The SCIP Topic Population (common to all SCIP measures) is defined as patients admitted to the hospital for inpatient acute care with an ICD-9-CM Principal Procedure Code for SCIP as defined in Appendix A, Table 5.10 and a Length of Stay (Discharge Date - Admission Date) <= 120 days. There are eight distinct strata or sub-populations within the SCIP Topic Population, each identified by a specific group of procedure codes. The patients in each stratum are counted in the Initial Patient Population of multiple measures.</p>	
<p>2a.24 Data Source <i>(Check the source(s) for which the measure is specified and tested)</i> Paper medical record/flow-sheet, Electronic clinical data, Electronic Health/Medical Record</p>	
<p>2a.25 Data source/data collection instrument <i>(Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.):</i> Vendor tools (electronic) or CART. CART is available for download free at http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138900279093</p>	
<p>2a.26-28 Data source/data collection instrument reference web page URL or attachment: URL http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138900279093</p>	
<p>2a.29-31 Data dictionary/code table web page URL or attachment: URL http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228754600169</p>	
<p>2a.32-35 Level of Measurement/Analysis <i>(Check the level(s) for which the measure is specified and tested)</i> Facility/Agency, Program: QIO, Can be measured at all levels</p>	
<p>2a.36-37 Care Settings <i>(Check the setting(s) for which the measure is specified and tested)</i> Hospital</p>	
<p>2a.38-41 Clinical Services <i>(Healthcare services being measured, check all that apply)</i></p>	
TESTING/ANALYSIS	
<p>2b. Reliability testing</p> <p>2b.1 Data/sample <i>(description of data/sample and size):</i> Measure has been used for reporting program since 2007.</p> <p>2b.2 Analytic Method <i>(type of reliability & rationale, method for testing):</i> Feedback from the hospital abstractors and the independent validation team is collected and incorporated. Reports on mismatches between national abstractors and the independent abstraction/validation contractor are reviewed quarterly. Revisions to data elements are made accordingly.</p> <p>2b.3 Testing Results <i>(reliability statistics, assessment of adequacy in the context of norms for the test conducted):</i> N/A</p>	<p>2b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2c. Validity testing</p>	<p>2c</p>

<p>2c.1 Data/sample (<i>description of data/sample and size</i>): The measure is reviewed by a Technical Expert Panel quarterly for validity. Specifications (including codes and data elements) are modified every six months according to feedback provided by clinicians and hospital staff collecting the data for the measure. National performance of the measure is monitored by the measure steward with quarterly benchmarks of hospital submitted data developed for distribution by QIOs.</p> <p>2c.2 Analytic Method (<i>type of validity & rationale, method for testing</i>): The TEP determines if the measure is still providing the information that it is intended to capture.</p> <p>2c.3 Testing Results (<i>statistical results, assessment of adequacy in the context of norms for the test conducted</i>): N/A</p>	<p>C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2d. Exclusions Justified</p> <p>2d.1 Summary of Evidence supporting exclusion(s): The exclusions to this measure were suggested by the TEP or are routine exclusions used by the SCIP measure set.</p> <p>2d.2 Citations for Evidence: N/A</p> <p>2d.3 Data/sample (<i>description of data/sample and size</i>): N/A</p> <p>2d.4 Analytic Method (<i>type analysis & rationale</i>): N/A</p> <p>2d.5 Testing Results (<i>e.g., frequency, variability, sensitivity analyses</i>): N/A</p>	<p>2d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2e. Risk Adjustment for Outcomes/ Resource Use Measures</p> <p>2e.1 Data/sample (<i>description of data/sample and size</i>): No risk adjustment performed.</p> <p>2e.2 Analytic Method (<i>type of risk adjustment, analysis, & rationale</i>): N/A</p> <p>2e.3 Testing Results (<i>risk model performance metrics</i>): N/A</p> <p>2e.4 If outcome or resource use measure is not risk adjusted, provide rationale: N/A</p>	<p>2e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2f. Identification of Meaningful Differences in Performance</p> <p>2f.1 Data/sample from Testing or Current Use (<i>description of data/sample and size</i>): Analysts review quarterly benchmarks and trends to identify differences in performance scores and investigate the possible causes. If measure specifications (algorithms, data elements) are causing variation, they are reviewed for possible updates.</p> <p>2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance (<i>type of analysis & rationale</i>): Analysts review quarterly benchmarks and trends to identify differences in performance scores and investigate the possible causes. If measure specifications (algorithms, data elements) are causing variation, they are reviewed for possible updates.</p> <p>2f.3 Provide Measure Scores from Testing or Current Use (<i>description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance</i>): Q109 rates:90.3%</p>	<p>2f C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>Q209 rates:91.3 Q309 rates:91.6 Q409 rates:91.7 Q110 rates; 92.5</p>	
<p>2g. Comparability of Multiple Data Sources/Methods</p> <p>2g.1 Data/sample (<i>description of data/sample and size</i>): At this time, the data source is the inpatient medical record only.</p> <p>2g.2 Analytic Method (<i>type of analysis & rationale</i>): N/A</p> <p>2g.3 Testing Results (<i>e.g., correlation statistics, comparison of rankings</i>): N/A</p>	<p>2g C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2h. Disparities in Care</p> <p>2h.1 If measure is stratified, provide stratified results (<i>scores by stratified categories/cohorts</i>): Measure is not stratified, but a disparities report is attached to submission.</p> <p>2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans: See attached.</p>	<p>2h C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Scientific Acceptability of Measure Properties</i>?</p>	<p>2</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Scientific Acceptability of Measure Properties</i>, met? Rationale:</p>	<p>2 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
3. USABILITY	
<p>Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>3a. Meaningful, Understandable, and Useful Information</p> <p>3a.1 Current Use: In use</p> <p>3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large) (<i>If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years</i>): Measure is used in Hospital Inpatient Quality Reporting Program (formerly RHQDAPU)</p> <p>3a.3 If used in other programs/initiatives (<i>If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years</i>): Measure is also used for accreditation by the Joint Commission.</p> <p>Testing of Interpretability (<i>Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement</i>)</p> <p>3a.4 Data/sample (<i>description of data/sample and size</i>): Measure is reported on a public website, Hospital Compare. Feedback on this website is collected through another contractor.</p> <p>3a.5 Methods (<i>e.g., focus group, survey, QI project</i>): Measure is reported on a public website, Hospital Compare. Feedback on this website is collected through another contractor.</p>	<p>3a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>3a.6 Results (<i>qualitative and/or quantitative results and conclusions</i>): Measure is reported on a public website, Hospital Compare. Feedback on this website is collected through another contractor.</p>	
<p>3b/3c. Relation to other NQF-endorsed measures</p> <p>3b.1 NQF # and Title of similar or related measures: #217</p>	
<p>(for NQF staff use) Notes on similar/related <u>endorsed</u> or submitted measures:</p>	
<p>3b. Harmonization If this measure is related to measure(s) already <u>endorsed by NQF</u> (e.g., same topic, but different target population/setting/data source <u>or</u> different topic but same target population): 3b.2 Are the measure specifications harmonized? If not, why? There is a Joint commission measure that covers hospitalized patients, but their measure excludes those undergoing surgery. There is no competition.</p>	<p>3b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>3c. Distinctive or Additive Value 3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures: Not applicable</p> <p>5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality: Not applicable</p>	<p>3c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Usability</i>?</p>	<p>3</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Usability</i>, met? Rationale:</p>	<p>3 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
4. FEASIBILITY	
<p>Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>4a. Data Generated as a Byproduct of Care Processes</p> <p>4a.1-2 How are the data elements that are needed to compute measure scores generated? Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)</p>	<p>4a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4b. Electronic Sources</p> <p>4b.1 Are all the data elements available electronically? (<i>elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims</i>) No</p> <p>4b.2 If not, specify the near-term path to achieve electronic capture by most providers. Measure will be retooled for EHR collection in the near future.</p>	<p>4b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4c. Exclusions</p> <p>4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications? No</p> <p>4c.2 If yes, provide justification.</p>	<p>4c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>

<p>4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences</p> <p>4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results. <i>No unintended consequences have been identified.</i></p>	<p>4d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4e. Data Collection Strategy/Implementation</p> <p>4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues: <i>There have been no implementation issues identified.</i></p> <p>4e.2 Costs to implement the measure (<i>costs of data collection, fees associated with proprietary measures</i>): <i>No information has been collected related to costs to implement the measure.</i></p> <p>4e.3 Evidence for costs: <i>Data abstraction is usually performed by nurses in the Quality Improvement department of the facilities.</i></p> <p>4e.4 Business case documentation: <i>There have been no additions to the business case to support this measure since it's implementation.</i></p>	<p>4e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Feasibility</i>?</p>	<p>4</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Feasibility</i>, met? Rationale:</p>	<p>4 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
RECOMMENDATION	
<p><i>(for NQF staff use)</i> Check if measure is untested and only eligible for time-limited endorsement.</p>	<p>Time-limited <input type="checkbox"/></p>
<p>Steering Committee: Do you recommend for endorsement? Comments:</p>	<p>Y <input type="checkbox"/> N <input type="checkbox"/> A <input type="checkbox"/></p>
CONTACT INFORMATION	
<p>Co.1 Measure Steward (Intellectual Property Owner) Co.1 Organization Centers for Medicare & Medicaid Services, 7500 Security Boulevard , Mail Stop S3-01-02, Baltimore, Maryland, 21244-1850</p> <p>Co.2 Point of Contact Kristie, Baus, RN, MS, kristie.baus@cms.hhs.gov, 410-786-8161-</p>	
<p>Measure Developer If different from Measure Steward Co.3 Organization Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Mail Stop S3-01-02, Baltimore, Maryland, 21244-1850</p> <p>Co.4 Point of Contact Kristie, Baus, RN, MS, kristie.baus@cms.hhs.gov, 410-786-8161-</p>	
<p>Co.5 Submitter If different from Measure Steward POC Wanda, Johnson, RN, wjohnson@ofmq.com, 405-302-3278-, Centers for Medicare & Medicaid Services</p>	

<p>Co.6 Additional organizations that sponsored/participated in measure development Oklahoma Foundation for Medical Quality, under contract to CMS.</p>
<p>ADDITIONAL INFORMATION</p>
<p>Workgroup/Expert Panel involved in measure development Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development. Surgical Care Improvement Project VTE TEP. Names available from OFMQ. Leading guideline author Bill Geerts MD was instrumental in the development of these two measures. He has been active on the TEP since its inception.</p>
<p>Ad.2 If adapted, provide name of original measure: Ad.3-5 If adapted, provide original specifications URL or attachment</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance Ad.6 Year the measure was first released: 2006 Ad.7 Month and Year of most recent revision: 10, 2010 Ad.8 What is your frequency for review/update of this measure? every six months Ad.9 When is the next scheduled review/update for this measure? 04, 2011</p>
<p>Ad.10 Copyright statement/disclaimers:</p>
<p>Ad.11 -13 Additional Information web page URL or attachment: Attachment Disparities Table_01_2009.xls</p>
<p>Date of Submission (MM/DD/YY): 12/08/2010</p>

Racial/ethnic disparities for 26 performance measures using 2009 clinical data warehouse

We used SAS procedure Glimmix to account for the correlation/clustering effect of patients within hospital. Random intercepts were used for each hospital. The model included only race-related dummy variables. The between-hospital effects were estimated by including hospital proportion of patients for each minority group in the model. For details of the methodology see Hausmann et al. "Between-hospital and within-hospital racial and ethnic disparities in community-acquired pneumonia treatment and mortality." *Medical Care* 2009; 47(9): 1009-1017

We excluded patients whose race/ethnicity was missing or "unable to determine" in the dataset.

Race/ethnicity	Num	Den	Percent	Partitioning within- and between-hospital effects			
				Unadjusted OR (95%CI)	Within-hospital effects OR (95%CI)	Between-hospital effects OR (95%CI)	Re-scaled between-hospital effects OR (95%CI)
AMI1: Aspirin at arrival							
Caucasian	247,145	251,158	98.4	ref.	ref.	ref.	ref.
African-American	36,868	37,747	97.7	0.68 (0.63-0.73)	0.72 (0.66-0.79)	0.83 (0.60-1.15)	0.96 (0.89-1.03)
Hispanic	26,561	27,316	97.2	0.57 (0.53-0.62)	1.06 (0.93-1.20)	0.60 (0.45-0.81)	0.86 (0.79-0.94)
Asian/Pacific Islander	7,346	7,472	98.3	0.95 (0.79-1.13)	1.02 (0.82-1.26)	2.38 (1.05-5.42)	1.08 (1.00-1.16)
Native American	1,074	1,087	98.8	1.34 (0.78-2.32)	1.72 (0.92-3.20)	0.29 (0.07-1.18)	0.90 (0.81-1.01)
AMI2: Aspirin at discharge							
Caucasian	305,754	310,489	98.5	ref.	ref.	ref.	ref.
African-American	39,545	40,591	97.4	0.59 (0.55-0.63)	0.69 (0.64-0.75)	0.71 (0.48-1.04)	0.92 (0.85-1.01)
Hispanic	27,791	28,805	96.5	0.42 (0.40-0.45)	1.00 (0.89-1.12)	0.35 (0.25-0.49)	0.74 (0.67-0.82)
Asian/Pacific Islander	7,694	7,854	98.0	0.74 (0.64-0.87)	0.91 (0.75-1.10)	1.99 (0.77-5.11)	1.06 (0.98-1.16)
Native American	1,908	1,935	98.6	1.09 (0.75-1.60)	1.33 (0.84-2.10)	0.59 (0.10-3.55)	0.96 (0.83-1.11)
AMI3: ACEI or ARB for LVSD							
Caucasian	54,767	57,482	95.3	ref.	ref.	ref.	ref.
African-American	8,642	9,024	95.8	1.12 (1.01-1.25)	1.19 (1.05-1.36)	1.03 (0.72-1.47)	1.01 (0.93-1.09)
Hispanic	5,591	5,896	94.8	0.91 (0.80-1.03)	1.25 (1.06-1.49)	0.59 (0.43-0.81)	0.86 (0.78-0.94)
Asian/Pacific Islander	1,302	1,372	94.9	0.92 (0.72-1.18)	0.94 (0.71-1.25)	1.11 (0.45-2.69)	1.01 (0.93-1.09)
Native American	371	393	94.4	0.84 (0.54-1.29)	0.98 (0.60-1.58)	0.36 (0.06-2.23)	0.92 (0.79-1.07)
AMI4: Smoking cessation counseling							
Caucasian	103,977	104,611	99.4	ref.	ref.	ref.	ref.
African-American	16,611	16,741	99.2	0.78 (0.64-0.94)	0.86 (0.66-1.07)	0.88 (0.44-1.76)	0.97 (0.83-1.14)
Hispanic	7,671	7,757	98.9	0.54 (0.43-0.68)	1.07 (0.76-1.51)	0.32 (0.17-0.59)	0.72 (0.60-0.86)

Asian/Pacific Islander	1,720	1,747	98.5	0.39 (0.26-0.57)	0.59 (0.35-0.99)	0.26 (0.06-1.16)	0.88 (0.77-1.01)
Native American	753	767	98.2	0.33 (0.19-0.56)	0.92 (0.39-2.18)	0.01 (0.00-0.05)	0.68 (0.58-0.79)

AMI5: Beta-blocker at discharge

Caucasian	298,954	304,013	98.3	ref.	ref.	ref.	ref.
African-American	39,112	40,008	97.8	0.74 (0.69-0.79)	0.95 (0.87-1.03)	0.60 (0.41-0.87)	0.89 (0.81-0.97)
Hispanic	27,331	28,382	96.3	0.44 (0.41-0.47)	1.06 (0.95-1.19)	0.31 (0.22-0.44)	0.72 (0.65-0.79)
Asian/Pacific Islander	7,602	7,738	98.2	0.95 (0.80-1.12)	1.08 (0.89-1.32)	2.37 (0.92-6.08)	1.08 (0.99-1.18)
Native American	1,841	1,882	97.8	0.76 (0.56-1.04)	1.20 (0.81-1.78)	0.06 (0.02-0.22)	0.80 (0.72-0.89)

AMI7A: Fibrinolytic within 30 minutes

Caucasian	651	1,169	55.7	ref.	ref.	ref.	ref.
African-American	73	157	46.5	0.69 (0.50-0.97)	0.78 (0.52-1.17)	0.61 (0.27-1.41)	0.89 (0.74-1.08)
Hispanic	190	417	45.6	0.67 (0.53-0.83)	0.92 (0.61-1.39)	0.58 (0.36-0.91)	0.85 (0.75-0.97)
Asian/Pacific Islander	36	61	59.0	1.15 (0.68-1.93)	1.16 (0.62-2.17)	1.22 (0.20-7.31)	1.02 (0.87-1.20)
Native American	1	3	33.3	0.40 (0.04-4.40)	0.67 (0.04-11.74)	0.01 (0.00-14.42)	0.69 (0.39-1.24)

AMI8A: PCI within 90 minutes

Caucasian	38,044	43,171	88.1	ref.	ref.	ref.	ref.
African-American	3,448	4,234	81.4	0.59 (0.54-0.64)	0.65 (0.59-0.71)	0.27 (0.19-0.40)	0.74 (0.68-0.81)
Hispanic	3,297	3,936	83.8	0.70 (0.64-0.76)	0.84 (0.75-0.94)	0.29 (0.20-0.43)	0.70 (0.62-0.78)
Asian/Pacific Islander	1,079	1,237	87.2	0.92 (0.78-1.09)	1.10 (0.90-1.33)	0.43 (0.17-1.07)	0.93 (0.85-1.01)
Native American	160	189	84.7	0.74 (0.50-1.11)	0.90 (0.59-1.38)	0.07 (0.00-1.25)	0.81 (0.64-1.02)

HF1: Discharge instructions

Caucasian	357,746	414,742	86.3	ref.	ref.	ref.	ref.
African-American	124,070	143,689	86.3	1.01 (0.99-1.03)	1.02 (0.99-1.04)	1.46 (1.10-1.95)	1.09 (1.02-1.17)
Hispanic	44,786	51,690	86.6	1.03 (1.01-1.06)	0.97 (0.93-1.01)	1.74 (1.28-2.36)	1.17 (1.07-1.28)
Asian/Pacific Islander	9,895	11,375	87.0	1.07 (1.01-1.13)	0.95 (0.88-1.01)	2.06 (0.96-4.46)	1.07 (1.00-1.14)
Native American	2,351	3,083	76.3	0.51 (0.47-0.56)	1.10 (0.97-1.25)	0.07 (0.04-0.12)	0.81 (0.77-0.85)

HF2: Evaluation of LV function

Caucasian	521,142	535,940	97.2	ref.	ref.	ref.	ref.
African-American	159,661	163,219	97.8	1.27 (1.23-1.32)	1.06 (1.01-1.11)	4.11 (2.78-6.09)	1.38 (1.26-1.52)
Hispanic	55,388	57,714	96.0	0.68 (0.65-0.71)	0.93 (0.86-1.01)	0.84 (0.56-1.27)	0.95 (0.85-1.07)
Asian/Pacific Islander	12,720	13,004	97.8	1.27 (1.13-1.43)	1.04 (0.89-1.21)	9.18 (3.11-27.08)	1.22 (1.11-1.35)
Native American	3,201	3,416	93.7	0.42 (0.37-0.49)	1.03 (0.81-1.32)	0.07 (0.03-0.14)	0.81 (0.76-0.86)

HF3: ACEI or ARB for LVSD

Caucasian	145,067	155,808	93.1	ref.	ref.	ref.	ref.
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African-American	66,217	69,597	95.1	1.45 (1.39-1.51)	1.52 (1.45-1.60)	1.38 (1.07-1.77)	1.08 (1.02-1.14)
Hispanic	18,769	20,068	93.5	1.07 (1.01-1.14)	1.23 (1.13-1.33)	1.24 (0.95-1.62)	1.06 (0.98-1.15)
Asian/Pacific Islander	3,777	3,962	95.3	1.51 (1.30-1.75)	1.40 (1.17-1.66)	2.42 (1.22-4.83)	1.08 (1.02-1.15)
Native American	1,173	1,278	91.8	0.83 (0.68-1.01)	1.18 (0.90-1.55)	0.24 (0.13-0.45)	0.89 (0.85-0.94)
HF4: Smoking cessation counseling							
Caucasian	76,177	77,858	97.8	ref.	ref.	ref.	ref.
African-American	44,071	44,760	98.5	1.41 (1.29-1.54)	1.29 (1.14-1.47)	3.46 (2.16-5.54)	1.33 (1.19-1.48)
Hispanic	7,273	7,423	98.0	1.07 (0.90-1.27)	1.07 (0.85-1.36)	1.11 (0.66-1.89)	1.03 (0.89-1.20)
Asian/Pacific Islander	1,375	1,413	97.3	0.80 (0.58-1.11)	0.77 (0.50-1.20)	1.83 (0.50-6.67)	1.06 (0.94-1.19)
Native American	692	732	94.5	0.38 (0.28-0.53)	0.82 (0.46-1.43)	0.04 (0.01-0.10)	0.77 (0.71-0.83)
PN2: Pneumococcal vaccination given or screened for							
Caucasian	378,259	408,034	92.7	ref.	ref.	ref.	ref.
African-American	34,705	39,186	88.6	0.61 (0.59-0.63)	0.72 (0.69-0.75)	0.48 (0.37-0.62)	0.84 (0.79-0.90)
Hispanic	24,135	28,528	84.6	0.43 (0.42-0.45)	0.75 (0.71-0.79)	0.25 (0.19-0.33)	0.67 (0.62-0.73)
Asian/Pacific Islander	8,804	9,900	88.9	0.63 (0.59-0.67)	0.70 (0.65-0.77)	0.91 (0.45-1.82)	0.99 (0.93-1.06)
Native American	2,310	2,640	87.5	0.55 (0.49-0.62)	0.91 (0.76-1.09)	0.29 (0.18-0.49)	0.91 (0.87-0.94)
PN3A: Initial blood culture within 24 hours - ICU only							
Caucasian	78,108	82,387	94.8	ref.	ref.	ref.	ref.
African-American	12,551	13,078	96.0	1.30 (1.19-1.43)	1.12 (1.00-1.25)	2.53 (1.84-3.49)	1.24 (1.15-1.33)
Hispanic	7,338	7,863	93.3	0.77 (0.70-0.84)	1.09 (0.95-1.26)	0.70 (0.51-0.96)	0.90 (0.82-0.99)
Asian/Pacific Islander	2,199	2,271	96.8	1.67 (1.32-2.12)	1.17 (0.90-1.52)	16.33 (6.12-43.59)	1.29 (1.18-1.40)
Native American	776	846	91.7	0.61 (0.47-0.78)	1.37 (0.90-2.09)	0.28 (0.14-0.56)	0.90 (0.86-0.95)
PN3B: Initial blood culture before first antibiotic dose - ED only							
Caucasian	361,802	380,083	95.2	ref.	ref.	ref.	ref.
African-American	56,541	60,416	93.6	0.74 (0.71-0.76)	0.87 (0.83-0.90)	0.64 (0.52-0.77)	0.90 (0.86-0.94)
Hispanic	34,169	37,132	92.0	0.58 (0.56-0.61)	0.90 (0.85-0.95)	0.33 (0.27-0.40)	0.73 (0.69-0.77)
Asian/Pacific Islander	9,388	9,889	94.9	0.95 (0.86-1.04)	1.05 (0.94-1.16)	1.50 (0.89-2.51)	1.04 (0.99-1.09)
Native American	3,058	3,402	89.9	0.45 (0.40-0.50)	1.00 (0.83-1.21)	0.19 (0.13-0.27)	0.88 (0.85-0.90)
PN4: Smoking cessation counseling							
Caucasian	153,759	158,876	96.8	ref.	ref.	ref.	ref.
African-American	30,859	31,710	97.3	1.21 (1.12-1.30)	1.03 (0.93-1.13)	4.02 (2.65-6.12)	1.38 (1.25-1.52)
Hispanic	9,885	10,230	96.6	0.95 (0.85-1.07)	0.97 (0.83-1.12)	1.20 (0.76-1.90)	1.05 (0.92-1.21)
Asian/Pacific Islander	1,689	1,759	96.0	0.80 (0.63-1.02)	0.92 (0.67-1.26)	1.66 (0.53-5.16)	1.05 (0.94-1.16)
Native American	1,722	1,940	88.8	0.26 (0.23-0.30)	0.74 (0.57-0.96)	0.03 (0.01-0.06)	0.75 (0.71-0.80)

PN5C: First antibiotic dose within 6 hours							
Caucasian	402,180	421,893	95.3	ref.	ref.	ref.	ref.
African-American	60,989	66,036	92.4	0.59 (0.57-0.61)	0.80 (0.77-0.83)	0.31 (0.26-0.37)	0.77 (0.74-0.80)
Hispanic	35,145	39,094	89.9	0.44 (0.42-0.45)	0.91 (0.86-0.96)	0.18 (0.15-0.21)	0.61 (0.58-0.64)
Asian/Pacific Islander	9,399	9,865	95.3	0.99 (0.90-1.09)	1.05 (0.94-1.17)	1.55 (0.97-2.50)	1.04 (1.00-1.09)
Native American	3,430	3,752	91.4	0.52 (0.47-0.59)	1.12 (0.92-1.35)	0.20 (0.14-0.28)	0.88 (0.86-0.90)
PN6: Antibiotic selection consistent with guidelines							
Caucasian	254,116	279,291	91.0	ref.	ref.	ref.	ref.
African-American	35,023	38,201	91.7	1.09 (1.05-1.13)	1.24 (1.19-1.30)	0.94 (0.80-1.11)	0.99 (0.95-1.02)
Hispanic	25,350	28,361	89.4	0.83 (0.80-0.87)	1.18 (1.11-1.25)	0.60 (0.51-0.71)	0.86 (0.82-0.90)
Asian/Pacific Islander	6,093	6,689	91.1	1.01 (0.93-1.10)	1.00 (0.91-1.11)	1.18 (0.77-1.82)	1.02 (0.98-1.05)
Native American	2,570	2,922	88.0	0.72 (0.65-0.81)	1.06 (0.89-1.26)	0.51 (0.37-0.70)	0.95 (0.92-0.97)
PN7: Influenza vaccination given or screened for							
Caucasian	266,920	293,208	91.0	ref.	ref.	ref.	ref.
African-American	31,910	37,007	86.2	0.62 (0.60-0.64)	0.72 (0.69-0.75)	0.43 (0.34-0.55)	0.82 (0.78-0.87)
Hispanic	18,854	22,505	83.8	0.51 (0.49-0.53)	0.78 (0.73-0.82)	0.27 (0.21-0.34)	0.68 (0.64-0.73)
Asian/Pacific Islander	5,702	6,539	87.2	0.67 (0.62-0.72)	0.81 (0.74-0.89)	0.70 (0.37-1.32)	0.97 (0.92-1.03)
Native American	1,927	2,405	80.1	0.40 (0.36-0.44)	0.96 (0.81-1.14)	0.12 (0.08-0.19)	0.85 (0.82-0.88)
SCIP1: Antibiotic within 1 hour before incision or 2 hours for vancomycin or quinolone							
Caucasian	827,536	860,067	96.2	ref.	ref.	ref.	ref.
African-American	95,484	99,527	95.9	0.93 (0.90-0.96)	0.97 (0.93-1.01)	0.99 (0.78-1.25)	1.00 (0.95-1.05)
Hispanic	60,439	64,806	93.3	0.54 (0.53-0.56)	1.01 (0.96-1.07)	0.31 (0.25-0.39)	0.71 (0.67-0.76)
Asian/Pacific Islander	14,743	15,282	96.5	1.08 (0.99-1.17)	0.99 (0.90-1.10)	2.31 (1.24-4.31)	1.08 (1.02-1.14)
Native American	4,037	4,325	93.3	0.55 (0.49-0.62)	0.87 (0.74-1.03)	0.16 (0.09-0.29)	0.86 (0.83-0.91)
SCIP2: Prophylactic antibiotic consistent with guidelines							
Caucasian	848,411	868,974	97.6	ref.	ref.	ref.	ref.
African-American	97,576	100,464	97.1	0.82 (0.79-0.85)	0.96 (0.91-1.00)	0.55 (0.44-0.68)	0.87 (0.83-0.91)
Hispanic	62,778	64,991	96.6	0.69 (0.66-0.72)	1.03 (0.97-1.10)	0.43 (0.35-0.54)	0.79 (0.74-0.83)
Asian/Pacific Islander	15,171	15,547	97.6	0.98 (0.88-1.08)	1.10 (0.98-1.24)	0.98 (0.56-1.72)	1.00 (0.95-1.05)
Native American	4,230	4,360	97.0	0.79 (0.66-0.94)	0.97 (0.78-1.20)	0.32 (0.18-0.57)	0.91 (0.87-0.96)
SCIP3: Prophylactic ABX discontinued within 24 h. of surgery end time or 24 h. for cardiac surgery							
Caucasian	766,551	819,715	93.5	ref.	ref.	ref.	ref.
African-American	87,315	94,468	92.4	0.85 (0.83-0.87)	0.96 (0.93-0.99)	0.55 (0.46-0.67)	0.87 (0.83-0.91)
Hispanic	54,461	61,420	88.7	0.54 (0.53-0.56)	1.03 (0.99-1.07)	0.36 (0.30-0.44)	0.75 (0.71-0.79)

Asian/Pacific Islander	13,218	14,358	92.1	0.80 (0.76-0.85)	1.04 (0.97-1.12)	0.56 (0.34-0.93)	0.95 (0.91-0.99)
Native American	3,812	4,103	92.9	0.91 (0.81-1.02)	0.96 (0.84-1.11)	0.63 (0.36-1.10)	0.96 (0.92-1.01)

SCIP4: Controlled 6 AM postoperative serum glucose - cardiac surgery

Caucasian	134,822	144,908	93.0	ref.	ref.	ref.	ref.
African-American	10,742	11,722	91.6	0.82 (0.77-0.88)	0.91 (0.85-0.98)	0.53 (0.38-0.74)	0.86 (0.80-0.93)
Hispanic	11,031	12,520	88.1	0.55 (0.52-0.59)	0.74 (0.68-0.81)	0.40 (0.29-0.56)	0.77 (0.70-0.84)
Asian/Pacific Islander	3,437	3,773	91.1	0.77 (0.68-0.86)	0.86 (0.75-0.98)	0.50 (0.23-1.08)	0.94 (0.88-1.01)
Native American	706	766	92.2	0.88 (0.68-1.15)	0.75 (0.56-1.00)	2.86 (0.23-35.20)	1.09 (0.89-1.33)

SCIP6: appropriate hair removal

Caucasian	1,222,603	1,232,305	99.2	ref.	ref.	ref.	ref.
African-American	149,984	151,395	99.1	0.84 (0.80-0.89)	1.03 (0.96-1.10)	0.86 (0.55-1.35)	0.97 (0.87-1.07)
Hispanic	95,326	97,273	98.0	0.39 (0.37-0.41)	0.92 (0.84-1.00)	0.18 (0.12-0.28)	0.61 (0.54-0.69)
Asian/Pacific Islander	23,368	23,575	99.1	0.90 (0.78-1.03)	0.98 (0.84-1.15)	1.40 (0.44-4.53)	1.03 (0.93-1.15)
Native American	6,390	6,543	97.7	0.33 (0.28-0.39)	1.05 (0.78-1.42)	0.07 (0.03-0.20)	0.81 (0.75-0.88)

SCIPCARD2: Perioperative period beta blocker

Caucasian	327,860	359,462	91.2	ref.	ref.	ref.	ref.
African-American	34,505	38,004	90.8	0.95 (0.92-0.99)	1.01 (0.96-1.05)	0.78 (0.59-1.01)	0.94 (0.89-1.00)
Hispanic	17,805	20,128	88.5	0.74 (0.71-0.77)	0.96 (0.91-1.03)	0.52 (0.39-0.70)	0.83 (0.76-0.90)
Asian/Pacific Islander	5,128	5,770	88.9	0.77 (0.71-0.84)	0.87 (0.79-0.96)	0.98 (0.48-2.02)	1.00 (0.94-1.07)
Native American	1,312	1,493	87.9	0.70 (0.60-0.82)	0.84 (0.70-1.01)	0.24 (0.10-0.54)	0.89 (0.83-0.95)

SCIPVTE1: Recommended VTE prophylaxis ordered during admission

Caucasian	343,547	367,129	93.6	ref.	ref.	ref.	ref.
African-American	49,075	52,658	93.2	0.94 (0.91-0.98)	0.92 (0.88-0.96)	1.02 (0.79-1.33)	1.01 (0.95-1.07)
Hispanic	27,199	30,224	90.0	0.62 (0.59-0.64)	0.79 (0.75-0.84)	0.38 (0.29-0.50)	0.76 (0.70-0.82)
Asian/Pacific Islander	7,406	8,195	90.4	0.64 (0.60-0.69)	0.78 (0.71-0.86)	0.45 (0.23-0.87)	0.93 (0.88-0.99)
Native American	1,999	2,208	90.5	0.66 (0.57-0.76)	0.98 (0.81-1.19)	0.14 (0.07-0.27)	0.85 (0.81-0.90)

SCIPVTE2: Received VTE prophylaxis within 24 hours prior to or after surgery

Caucasian	334,443	365,471	91.5	ref.	ref.	ref.	ref.
African-American	47,804	52,220	91.5	1.00 (0.97-1.04)	1.00 (0.96-1.04)	1.02 (0.81-1.28)	1.00 (0.95-1.06)
Hispanic	26,376	29,811	88.5	0.71 (0.69-0.74)	0.85 (0.81-0.90)	0.54 (0.43-0.69)	0.84 (0.78-0.90)
Asian/Pacific Islander	7,241	8,126	89.1	0.76 (0.71-0.81)	0.86 (0.79-0.94)	0.56 (0.31-1.00)	0.95 (0.90-1.00)
Native American	1,942	2,183	89.0	0.75 (0.65-0.86)	1.06 (0.89-1.26)	0.18 (0.10-0.34)	0.87 (0.83-0.92)

Appendix A
ICD-9-CM Code Tables

Last Updated: Version 3.2

Index		
Number	Name	Page
Table 1.1	Acute Myocardial Infarction (AMI)	Appendix A-3
Table 1.2	Percutaneous Coronary Intervention (PCI)	Appendix A-3
Table 2.1	Heart Failure (HF)	Appendix A-3
Table 2.2	Left Ventricular Assistive Device (LVAD) and Heart Transplant	Appendix A-4
Table 3.1	Pneumonia (PN)	Appendix A-4
Table 3.2	Septicemia	Appendix A-5
Table 3.3	Respiratory Failure	Appendix A-5
Table 3.4	Cystic Fibrosis	Appendix A-5
Table 4.01	Reserved for Future Use	N/A
Table 4.02	Reserved for Future Use	N/A
Table 4.03	Reserved for Future Use	N/A
Table 4.04	Reserved for Future Use	N/A
Table 4.05	Reserved for Future Use	N/A
Table 4.06	Reserved for Future Use	N/A
Table 4.07	Cesarean Section	Appendix A-6
Table 4.08	Reserved for Future Use	N/A
Table 4.09	Reserved for Future Use	N/A
Table 4.10	Reserved for Future Use	N/A
Table 4.10.1	Reserved for Future Use	N/A
Table 4.11	Reserved for Future Use	N/A
Table 4.12	Reserved for Future Use	N/A
Table 4.13	Reserved for Future Use	N/A
Table 5.01	Coronary Artery Bypass Graft (CABG)	Appendix A-7
Table 5.02	Other Cardiac Surgery	Appendix A-7
Table 5.03	Colon Surgery	Appendix A-8
Table 5.04	Hip Arthroplasty	Appendix A-9
Table 5.05	Knee Arthroplasty	Appendix A-9
Table 5.06	Abdominal Hysterectomy	Appendix A-9
Table 5.07	Vaginal Hysterectomy	Appendix A-9
Table 5.08	Vascular Surgery	Appendix A-10
Table 5.09	Infection	Appendix A-10
Table 5.10	Major Surgery	Appendix A-25
Table 5.11	Cardiac Surgery	Appendix A-34
Table 5.12	Reserved for Future Use	N/A
Table 5.13	Hip Fractures	Appendix A-36
Table 5.14	Burns	Appendix A-37
Table 5.15	Transplant	Appendix A-45
Table 5.16	Urological/Perineal	Appendix A-45
Table 5.17	Intracranial Neurosurgery	Appendix A-56

Index		
Number	Name	Page
Table 5.18	Reserved for Future Use	N/A
Table 5.19	General Surgery	Appendix A-57
Table 5.20	Gynecological Surgery	Appendix A-62
Table 5.21	Urological Surgery	Appendix A-62
Table 5.22	Elective Hip Replacement	Appendix A-63
Table 5.23	Elective Total Knee Replacement	Appendix A-64
Table 5.24	Hip Fracture Surgery	Appendix A-64
Table 5.25	Other Major Surgery for Sampling	Appendix A-64
Table 6.1	Asthma	Appendix A-70
Table 7.01	Mental Disorders	Appendix A-71
Table 7.02	Obstetrics	Appendix A-80
Table 7.03	Venous Thromboembolism (VTE)	Appendix A-99
Table 7.04	Obstetrics - VTE	Appendix A-99
Table 8.1	Ischemic Stroke	Appendix A-100
Table 8.2	Hemorrhagic Stroke	Appendix A-100
Table 12.1	Diabetes	Appendix A-100
Table 12.2	End-Stage Renal Disease	Appendix A-102
Table 12.3	Pregnancy	Appendix A-102
Table 12.4	Asthma	Appendix A-112
Table 12.5	Chronic Obstructive Pulmonary Disease (COPD)	Appendix A-112
Table 12.6	Nephrotic Syndrome	Appendix A-113
Table 12.7	Asplenia	Appendix A-113
Table 12.8	Human Immunodeficiency Virus (HIV)	Appendix A-113
Table 12.9	Influenza	Appendix A-113

Code	Shortened Description
410.00	AMI ANTEROLATERAL, UNSPEC
410.01	AMI ANTEROLATERAL, INIT
410.10	AMI ANTERIOR WALL, UNSPEC
410.11	AMI ANTERIOR WALL, INIT
410.20	AMI INFEROLATERAL, UNSPEC
410.21	AMI INFEROLATERAL, INIT
410.30	AMI INFEROPOST, UNSPEC
410.31	AMI INFEROPOST, INITIAL
410.40	AMI INFERIOR WALL, UNSPEC
410.41	AMI INFERIOR WALL, INIT
410.50	AMI LATERAL NEC, UNSPEC
410.51	AMI LATERAL NEC, INITIAL
410.60	TRUE POST INFARCT, UNSPEC
410.61	TRUE POST INFARCT, INIT
410.70	SUBENDO INFARCT, UNSPEC
410.71	SUBENDO INFARCT, INITIAL
410.80	AMI NEC, UNSPECIFIED
410.81	AMI NEC, INITIAL
410.90	AMI NOS, UNSPECIFIED
410.91	AMI NOS, INITIAL

Last Updated: Version 3.2

Code	Shortened Description
00.66	PTCA OR CORONARY ATHER

Last Updated: Version 3.2

Code	Shortened Description
402.01	MAL HYPERT HRT DIS W HF
402.11	BENIGN HYP HT DIS W HF
402.91	HYP HT DIS NOS W HT FAIL
404.01	MAL HYP HT/KD I-IV W HF
404.03	MAL HYP HT/KD STG V W HF
404.11	BEN HYP HT/KD I-IV W HF
404.13	BEN HYP HT/KD STG V W HF
404.91	HYP HT/KD NOS I-IV W HF
404.93	HYP HT/KD NOS ST V W HF
428.0	CHF NOS
428.1	LEFT HEART FAILURE

Table 2.1 Heart Failure (HF)	
Code	Shortened Description
428.20	SYSTOLIC HRT FAILURE NOS
428.21	AC SYSTOLIC HRT FAILURE
428.22	CHR SYSTOLIC HRT FAILURE
428.23	AC ON CHR SYST HRT FAIL
428.30	DIASTOLC HRT FAILURE NOS
428.31	AC DIASTOLIC HRT FAILURE
428.32	CHR DIASTOLIC HRT FAIL
428.33	AC ON CHR DIAST HRT FAIL
428.40	SYST/DIAST HRT FAIL NOS
428.41	AC SYST/DIASTOL HRT FAIL
428.42	CHR SYST/DIASTL HRT FAIL
428.43	AC/CHR SYST/DIA HRT FAIL
428.9	HEART FAILURE NOS

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Table 2.2 Left Ventricular Assistive Device (LVAD) and Heart Transplant	
Code	Shortened Description
33.6	COMB HEART/LUNG TRANSPLA
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.65	IMP VENT EXT HRT AST SYS
37.66	IMPLANTABLE HRT ASSIST
37.68	PERCUTAN HRT ASSIST SYST

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Table 3.1 Pneumonia (PN)	
Code	Shortened Description
481	PNEUMOCOCCAL PNEUMONIA
482.0	K. PNEUMONIAE PNEUMONIA
482.1	PSEUDOMONAL PNEUMONIA
482.2	H.INFLUENZAE PNEUMONIA
482.30	STREPTOCOCCAL PNEUMN NOS
482.31	PNEUMONIA STRPTOCOCCUS A
482.32	PNEUMONIA STRPTOCOCCUS B
482.39	PNEUMONIA OTH STREP
482.40	STAPHYLOCOCCAL PNEU NOS
482.41	METH SUS PNEUM D/T STAPH
482.42	METH RES PNEU D/T STAPH

Table 3.1 Pneumonia (PN)	
Code	Shortened Description
482.49	STAPH PNEUMONIA NEC
482.82	PNEUMONIA E COLI
482.83	PNEUMO OTH GRM-NEG BACT
482.84	LEGIONNAIRES' DISEASE
482.89	PNEUMONIA OTH SPCF BACT
482.9	BACTERIAL PNEUMONIA NOS
483.0	PNEU MYCPLSM PNEUMONIAE
483.1	PNEUMONIA D/T CHLAMYDIA
483.8	PNEUMON OTH SPEC ORGNSM
485	BRONCHOPNEUMONIA ORG NOS
486	PNEUMONIA, ORGANISM NOS

Last Updated: Version 3.2

Table 3.2 Septicemia	
Code	Shortened Description
038.0	STREPTOCOCCAL SEPTICEMIA
038.10	STAPHYLCOCC SEPTICEM NOS
038.11	METH SUSC STAPH AUR SEPT
038.12	MRSA SEPTICEMIA
038.19	STAPHYLCOCC SEPTICEM NEC
038.2	PNEUMOCOCCAL SEPTICEMIA
038.3	ANAEROBIC SEPTICEMIA
038.40	GRAM-NEG SEPTICEMIA NOS
038.41	H. INFLUENAE SEPTICEMIA
038.42	E COLI SEPTICEMIA
038.43	PSEUDOMONAS SEPTICEMIA
038.44	SERRATIA SEPTICEMIA
038.49	GRAM-NEG SEPTICEMIA NEC
038.8	SEPTICEMIA NEC
038.9	SEPTICEMIA NOS

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Table 3.3 Respiratory Failure	
Code	Shortened Description
518.81	ACUTE RESPIRATRY FAILURE
518.84	ACUTE & CHRONC RESP FAIL

Last Updated: Version 3.2

Table 3.4 Cystic Fibrosis	
Code	Shortened Description
277.00	CYSTIC FIBROSIS W/O ILEUS

Table 3.4 Cystic Fibrosis	
Code	Shortened Description
277.01	CYSTIC FIBROSIS W ILEUS
277.02	CYSTIC FIBROSIS W PUL MAN
277.03	CYSTIC FIBROSIS W GI MAN
277.09	CYSTIC FIBROSIS NEC

Table 4.01 – Reserved for Future Use

Table 4.02 – Reserved for Future Use

Table 4.03 – Reserved for Future Use

Table 4.04 – Reserved for Future Use

Table 4.05 – Reserved for Future Use

Table 4.06 – Reserved for Future use

Last Updated: Version 3.2

Table 4.07 Cesarean Section	
Code	Shortened Description
74.0	CLASSICAL C-SECTION
74.1	LOW CERVICAL C-SECTION
74.2	EXTRAPERITONEAL C-SECT
74.4	CESAREAN SECTION NEC
74.99	CESAREAN SECTION NOS

Table 4.08 – Reserved for Future Use

Table 4.09 – Reserved for Future Use

Table 4.10 – Reserved for Future Use

Table 4.10.1 – Reserved for Future Use

Table 4.11 – Reserved for Future Use

Table 4.12 – Reserved for Future Use

Table 4.13 – Reserved for Future Use

Code	Shortened Description
36.10	AORTOCORONARY BYPASS NOS
36.11	AORTOCOR BYPAS-1 COR ART
36.12	AORTOCOR BYPAS-2 COR ART
36.13	AORTOCOR BYPAS-3 COR ART
36.14	AORTCOR BYPAS-4+ COR ART
36.15	1 INT MAM-COR ART BYPASS
36.16	2 INT MAM-COR ART BYPASS
36.17	ABD-CORON ARTERY BYPASS
36.19	HRT REVAS BYPS ANAS NEC

Code	Shortened Description
35.10	OPEN VALVULOPLASTY NOS
35.11	OPN AORTIC VALVULOPLASTY
35.12	OPN MITRAL VALVULOPLASTY
35.13	OPN PULMON VALVULOPLASTY
35.14	OPN TRICUS VALVULOPLASTY
35.20	REPLACE HEART VALVE NOS
35.21	REPLACE AORT VALV-TISSUE
35.22	REPLACE AORTIC VALVE NEC
35.23	REPLACE MITR VALV-TISSUE
35.24	REPLACE MITRAL VALVE NEC
35.25	REPLACE PULM VALV-TISSUE
35.26	REPLACE PULMON VALVE NEC
35.27	REPLACE TRIC VALV-TISSUE
35.28	REPLACE TRICUSP VALV NEC
35.31	PAPILLARY MUSCLE OPS
35.32	CHORDAE TENDINEAE OPS
35.33	ANNULOPLASTY
35.34	INFUNDIBULECTOMY
35.35	TRABECUL CARNEAE CORD OP
35.39	TISS ADJ TO VALV OPS NEC
35.42	CREATE SEPTAL DEFECT
35.50	PROSTH REP HRT SEPTA NOS
35.51	PROS REP ATRIAL DEF-OPN
35.53	PROS REP VENTRIC DEF-OPN
35.54	PROS REP ENDOCAR CUSHION
35.60	GRFT REPAIR HRT SEPT NOS
35.61	GRAFT REPAIR ATRIAL DEF
35.62	GRAFT REPAIR VENTRIC DEF
35.63	GRFT REP ENDOCAR CUSHION

Table 5.02 Other Cardiac Surgery	
Code	Shortened Description
35.70	HEART SEPTA REPAIR NOS
35.72	VENTR SEPTA DEF REP NEC
35.73	ENDOCAR CUSHION REP NEC
35.81	TOT REPAIR TETRAL FALLOT
35.82	TOTAL REPAIR OF TAPVC
35.83	TOT REP TRUNCUS ARTERIOS
35.84	TOT COR TRANSPOS GRT VES
35.91	INTERAT VEN RETRN TRANSP
35.92	CONDUIT RT VENT-PUL ART
35.93	CONDUIT LEFT VENTR-AORTA
35.94	CONDUIT ARTIUM-PULM ART
35.98	OTHER HEART SEPTA OPS
35.99	OTHER HEART VALVE OPS

Last Updated: Version 3.2

Table 5.03 Colon Surgery	
Code	Shortened Description
17.31	LAP MUL SEG RES LG INTES
17.32	LAPAROSCOPIC CECECTOMY
17.33	LAP RIGHT HEMICOLECTOMY
17.34	LAP RES TRANSVERSE COLON
17.35	LAP LEFT HEMICOLECTOMY
17.36	LAP SIGMOIDECTOMY
17.39	LAP PT EX LRG INTEST NEC
45.00	INTESTINAL INCISION NOS
45.03	LARGE BOWEL INCISION
45.49	DESTRUC LG BOWEL LES NEC
45.50	INTEST SEG ISOLAT NOS
45.71	OPN MUL SEG LG INTES NEC
45.72	OPEN CECECTOMY NEC
45.73	OPN RT HEMICOLECTOMY NEC
45.74	OPN TRANSV COLON RES NEC
45.75	OPN LFT HEMICOLECTMY NEC
45.76	OPEN SIGMOIDECTOMY NEC
45.79	PRT LG INTES EXC NEC/NOS
45.90	INTESTINAL ANASTOM NOS
45.92	SM BOWEL-RECT STUMP ANAS
45.93	SMALL-TO-LARGE BOWEL NEC
45.94	LG-TO-LG BOWEL ANASTOM
45.95	ANAL ANASTOMOSIS
46.03	LG BOWEL EXTERIORIZATION
46.04	RESECT EXT SEG LG BOWEL
46.13	PERMANENT COLOSTOMY
46.75	SUTURE LG BOWEL LACERAT

Table 5.03 Colon Surgery	
Code	Shortened Description
46.76	CLOSE LG BOWEL FISTULA
46.91	MYOTOMY OF SIGMOID COLON
46.92	MYOTOMY OF COLON NEC
46.94	REVISE LG BOWEL ANASTOM
48.50	ABDPERNEAL RES RECTM NOS
48.61	TRANS SAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC

Last Updated: Version 3.2

Table 5.04 Hip Arthroplasty	
Code	Shortened Description
81.51	TOTAL HIP REPLACEMENT
81.52	PARTIAL HIP REPLACEMENT

Last Updated: Version 3.2

Table 5.05 Knee Arthroplasty	
Code	Shortened Description
81.54	TOTAL KNEE REPLACEMENT

Last Updated: Version 3.2

Table 5.06 Abdominal Hysterectomy	
Code	Shortened Description
68.31	LAP SCERVIC HYSTERECTOMY
68.49	TOTAL ABD HYST NEC/NOS
68.69	RADICAL ABD HYST NEC/NOS

Last Updated: Version 3.2

Table 5.07 Vaginal Hysterectomy	
Code	Shortened Description
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.79	RADICAL VAG HYST NEC/NOS

Code	Shortened Description
38.14	ENDARTERECTOMY OF AORTA
38.16	ABDOMINAL ENDARTERECTOMY
38.18	LOWER LIMB ENDARTERECT
38.34	AORTA RESECTION & ANAST
38.36	ABD VESSEL RESECT/ANAST
38.37	ABD VEIN RESECT & ANAST
38.44	RESECT ABDOM AORTA W REPL
38.48	LEG ARTERY RESEC W REPLA
38.49	LEG VEIN RESECT W REPLAC
38.64	EXCISION OF AORTA
39.25	AORTA-ILIAC-FEMOR BYPASS
39.26	INTRA-ABDOMIN SHUNT NEC
39.29	VASC SHUNT & BYPASS NEC

Last Updated: Version 3.2

Code	Shortened Description
001.0	CHOLERA D/T VIB CHOLERAE
001.1	CHOLERA D/T VIB EL TOR
001.9	CHOLERA NOS
002.0	TYPHOID FEVER
002.1	PARATYPHOID FEVER A
002.2	PARATYPHOID FEVER B
002.3	PARATYPHOID FEVER C
002.9	PARATYPHOID FEVER NOS
003.0	SALMONELLA ENTERITIS
003.1	SALMONELLA SEPTICEMIA
003.20	LOCAL SALMONELLA INF NOS
003.21	SALMONELLA MENINGITIS
003.22	SALMONELLA PNEUMONIA
003.23	SALMONELLA ARTHRITIS
003.24	SALMONELLA OSTEOMYELITIS
003.29	LOCAL SALMONELLA INF NEC
003.8	SALMONELLA INFECTION NEC
003.9	SALMONELLA INFECTION NOS
004.0	SHIGELLA DYSENTERIAE
004.1	SHIGELLA FLEXNERI
004.2	SHIGELLA BOYDII
004.3	SHIGELLA SONNEI
004.8	SHIGELLA INFECTION NEC
004.9	SHIGELLOSIS NOS
006.0	AC AMEBIASIS W/O ABSCESS

Table 5.09 Infection

Code	Shortened Description
006.1	CHR AMEBIASIS W/O ABSCESS
006.2	AMEBIC NONDYSSENT COLITIS
006.3	AMEBIC LIVER ABSCESS
006.4	AMEBIC LUNG ABSCESS
006.5	AMEBIC BRAIN ABSCESS
006.6	AMEBIC SKIN ULCERATION
006.8	AMEBIC INFECTION NEC
006.9	AMEBIASIS NOS
007.1	GIARDIASIS
008.00	INTEST INFEC E COLI NOS
008.01	INT INF E COLI ENTRPATH
008.02	INT INF E COLI ENTRTOXGN
008.03	INT INF E COLI ENTRNVSV
008.04	INT INF E COLI ENTRHMRG
008.09	INT INF E COLI SPCF NEC
008.1	ARIZONA ENTERITIS
008.2	AEROBACTER ENTERITIS
008.3	PROTEUS ENTERITIS
008.41	STAPHYLOCOCC ENTERITIS
008.42	PSEUDOMONAS ENTERITIS
008.43	INT INFEC CAMPYLOBACTER
008.44	INT INF YRSNIA ENTRCLTCA
008.45	INT INF CLSTRDIUM DFCILE
008.46	INTES INFEC OTH ANEROBES
008.47	INT INF OTH GRM NEG BCTR
008.49	BACTERIAL ENTERITIS NEC
008.5	BACTERIAL ENTERITIS NOS
008.8	VIRAL ENTERITIS NOS
009.0	INFECTIOUS ENTERITIS NOS
009.1	ENTERITIS OF INFECT ORIG
009.2	INFECTIOUS DIARRHEA NOS
009.3	DIARRHEA OF INFECT ORIG
020.0	BUBONIC PLAGUE
020.1	CELLULOCUTANEOUS PLAGUE
020.2	SEPTICEMIC PLAGUE
020.3	PRIMARY PNEUMONIC PLAGUE
020.4	SECONDARY PNEUMON PLAGUE
020.5	PNEUMONIC PLAGUE NOS
020.8	OTHER TYPES OF PLAGUE
020.9	PLAGUE NOS
021.0	ULCEROGLANDUL TULAREMIA
021.1	ENTERIC TULAREMIA
021.2	PULMONARY TULAREMIA
021.3	OCULOGLANDULAR TULAREMIA
021.8	TULAREMIA NEC

Table 5.09 Infection

Code	Shortened Description
021.9	TULAREMIA NOS
022.0	CUTANEOUS ANTHRAX
022.1	PULMONARY ANTHRAX
022.2	GASTROINTESTINAL ANTHRAX
022.3	ANTHRAX SEPTICEMIA
022.8	OTHER ANTHRAX MANIFEST
022.9	ANTHRAX NOS
023.0	BRUCELLA MELITENSIS
023.1	BRUCELLA ABORTUS
023.2	BRUCELLA SUIS
023.3	BRUCELLA CANIS
023.8	BRUCellosis NEC
023.9	BRUCellosis NOS
024	GLANDERS
025	MELIOIDOSIS
026.0	SPIRILLARY FEVER
026.1	STREPTOBACILLARY FEVER
026.9	RAT-BITE FEVER NOS
027.0	LISTERIOSIS
027.1	ERYSIPELOTHRIX INFECTION
027.2	PASTEURELLOSIS
027.8	ZOONOTIC BACT DIS NEC
027.9	ZOONOTIC BACT DIS NOS
030.0	LEPROMATOUS LEPROSY
030.1	TUBERCULOID LEPROSY
030.2	INDETERMINATE LEPROSY
030.3	BORDERLINE LEPROSY
030.8	LEPROSY NEC
030.9	LEPROSY NOS
031.0	PULMONARY MYCOBACTERIA
031.1	CUTANEOUS MYCOBACTERIA
031.2	DMAC BACTEREMIA
031.8	MYCOBACTERIAL DIS NEC
031.9	MYCOBACTERIAL DIS NOS
032.0	FAUCIAL DIPHTHERIA
032.1	NASOPHARYNX DIPHTHERIA
032.2	ANT NASAL DIPHTHERIA
032.3	LARYNGEAL DIPHTHERIA
032.81	CONJUNCTIVAL DIPHTHERIA
032.82	DIPHTHERITIC MYOCARDITIS
032.83	DIPHTHERITIC PERITONITIS
032.84	DIPHTHERITIC CYSTITIS
032.85	CUTANEOUS DIPHTHERIA
032.89	DIPHTHERIA NEC
032.9	DIPHTHERIA NOS

Table 5.09 Infection	
Code	Shortened Description
033.0	BORDETELLA PERTUSSIS
033.1	BORDETELLA PARAPERTUSSIS
033.8	WHOOPING COUGH NEC
033.9	WHOOPING COUGH NOS
034.0	STREP SORE THROAT
034.1	SCARLET FEVER
035	ERYSIPELAS
036.0	MENINGOCOCCAL MENINGITIS
036.1	MENINGOCOCC ENCEPHALITIS
036.2	MENINGOCOCCEMIA
036.3	MENINGOCOCC ADRENAL SYND
036.40	MENINGOCOCC CARDITIS NOS
036.41	MENINGOCOCC PERICARDITIS
036.42	MENINGOCOCC ENDOCARDITIS
036.43	MENINGOCOCC MYOCARDITIS
036.81	MENINGOCOCC OPTIC NEURIT
036.82	MENINGOCOCC ARTHROPATHY
036.89	MENINGOCOCCAL INFECT NEC
036.9	MENINGOCOCCAL INFECT NOS
037	TETANUS
038.0	STREPTOCOCCAL SEPTICEMIA
038.10	STAPHYLOCOCC SEPTICEM NOS
038.11	METH SUSC STAPH AUR SEPT
038.12	MRSA SEPTICEMIA
038.19	STAPHYLOCOCC SEPTICEM NEC
038.2	PNEUMOCOCCAL SEPTICEMIA
038.3	ANAEROBIC SEPTICEMIA
038.40	GRAM-NEG SEPTICEMIA NOS
038.41	H. INFLUENAE SEPTICEMIA
038.42	E COLI SEPTICEMIA
038.43	PSEUDOMONAS SEPTICEMIA
038.44	SERRATIA SEPTICEMIA
038.49	GRAM-NEG SEPTICEMIA NEC
038.8	SEPTICEMIA NEC
038.9	SEPTICEMIA NOS
039.0	CUTANEOUS ACTINOMYCOSIS
039.1	PULMONARY ACTINOMYCOSIS
039.2	ABDOMINAL ACTINOMYCOSIS
039.3	CERVICOFAC ACTINOMYCOSIS
039.4	MADURA FOOT
039.8	ACTINOMYCOSIS NEC
039.9	ACTINOMYCOSIS NOS
040.0	GAS GANGRENE
040.1	RHINOSCLEROMA
040.2	WHIPPLE'S DISEASE

Table 5.09 Infection

Code	Shortened Description
040.3	NECROBACILLOSIS
040.81	TROPICAL PYOMYOSITIS
040.82	TOXIC SHOCK SYNDROME
040.89	BACTERIAL DISEASES NEC
041.00	STREPTOCOCCUS UNSPECF
041.01	STREPTOCOCCUS GROUP A
041.02	STREPTOCOCCUS GROUP B
041.03	STREPTOCOCCUS GROUP C
041.04	ENTEROCOCCUS GROUP D
041.05	STREPTOCOCCUS GROUP G
041.09	OTHER STREPTOCOCCUS
041.10	STAPHYLOCOCCUS UNSPCFIED
041.11	MTH SUS STPH AUR ELS/NOS
041.12	MRSA ELSEWHERE/NOS
041.19	OTHER STAPHYLOCOCCUS
041.2	PNEUMOCOCCUS INFECT NOS
041.3	KLEBSIELLA PNEUMONIAE
041.4	E. COLI INFECT NOS
041.5	H. INFLUENZAE INFECT NOS
041.6	PROTEUS INFECTION NOS
041.7	PSEUDOMONAS INFECT NOS
041.81	MYCOPLASMA
041.82	BACTEROIDES FRAGILIS
041.83	CLOSTRIDIUM PERFRINGENS
041.84	OTHER ANAEROBES
041.85	OTH GRAM NEGATV BACTERIA
041.86	HELICOBACTER PYLORI
041.89	OTH SPECF BACTERIA
041.9	BACTERIAL INFECTION NOS
051.2	CONTAGIOUS PUSTULAR DERM
073.0	ORNITHOSIS PNEUMONIA
073.7	ORNITHOSIS COMPLICAT NEC
073.8	ORNITHOSIS COMPLICAT NOS
073.9	ORNITHOSIS NOS
076.0	TRACHOMA, INITIAL STAGE
076.1	TRACHOMA, ACTIVE STAGE
076.9	TRACHOMA NOS
078.2	SWEATING FEVER
078.3	CAT-SCRATCH DISEASE
078.4	FOOT & MOUTH DISEASE
078.6	HEM NEPHROSONEPHRITIS
078.88	OTH SPEC DIS CHLAMYDIAE
079.88	OTH SPCF CHLAMYDIAL INFC
079.98	CHLAMYDIAL INFECTION NOS
082.40	EHRlichiosis NOS

Table 5.09 Infection

Code	Shortened Description
082.41	EHRlichiosis chafeensis
082.49	EHRlichiosis NEC
082.8	TICK-BORNE Ricketts NEC
082.9	TICK-BORNE Ricketts NOS
083.2	Rickettsialpox
083.8	Rickettsioses NEC
083.9	Rickettsiosis NOS
088.0	Bartonellosis
088.81	Lyme disease
090.0	Early cong syph symptom
090.1	Early congen syph latent
090.2	Early congen syph NOS
090.3	Syphilitic keratitis
090.40	Juvenile neurosyph NOS
090.41	Congen syph encephalitis
090.42	Congen syph meningitis
090.49	Juvenile neurosyph NEC
090.5	Late congen syph symptom
090.6	Late congen syph latent
090.7	Late congen syph NOS
090.9	Congenital syphilis NOS
091.0	Primary genital syphilis
091.1	Primary anal syphilis
091.2	Primary syphilis NEC
091.3	Secondary syph skin
091.4	Syphilitic adenopathy
091.50	Syphilitic uveitis NOS
091.51	Syphilitic chorioretinitis
091.52	Syphilitic iridocyclitis
091.61	Syphilitic periostitis
091.62	Syphilitic hepatitis
091.69	Second syph viscera NEC
091.7	Second syphilis relapse
091.81	Acute syphil meningitis
091.82	Syphilitic alopecia
091.89	Secondary syphilis NEC
091.9	Secondary syphilis NOS
092.0	Early syph latent relaps
092.9	Early syphil latent NOS
093.0	Aortic aneurysm, syphil
093.1	Syphilitic aortitis
093.20	Syphil endocarditis NOS
093.21	Syphilitic mitral valve
093.22	Syphilitic aortic valve
093.23	Syphil tricuspid valve

Table 5.09 Infection	
Code	Shortened Description
093.24	SYPHIL PULMONARY VALVE
093.81	SYPHILITIC PERICARDITIS
093.82	SYPHILITIC MYOCARDITIS
093.89	CARDIOVASCULAR SYPH NEC
093.9	CARDIOVASCULAR SYPH NOS
094.0	TABES DORSALIS
094.1	GENERAL PARESIS
094.2	SYPHILITIC MENINGITIS
094.3	ASYMPTOMAT NEUROSYPHILIS
094.81	SYPHILITIC ENCEPHALITIS
094.82	SYPHILITIC PARKINSONISM
094.83	SYPH DISSEM RETINITIS
094.84	SYPHILITIC OPTIC ATROPHY
094.85	SYPH RETROBULB NEURITIS
094.86	SYPHIL ACOUSTIC NEURITIS
094.87	SYPH RUPT CEREB ANEURYSM
094.89	NEUROSYPHILIS NEC
094.9	NEUROSYPHILIS NOS
095.0	SYPHILITIC EPISCLERITIS
095.1	SYPHILIS OF LUNG
095.2	SYPHILITIC PERITONITIS
095.3	SYPHILIS OF LIVER
095.4	SYPHILIS OF KIDNEY
095.5	SYPHILIS OF BONE
095.6	SYPHILIS OF MUSCLE
095.7	SYPHILIS OF TENDON/BURSA
095.8	LATE SYMPT SYPHILIS NEC
095.9	LATE SYMPT SYPHILIS NOS
096	LATE SYPHILIS LATENT
097.0	LATE SYPHILIS NOS
097.1	LATENT SYPHILIS NOS
097.9	SYPHILIS NOS
098.0	ACUTE GC INFECT LOWER GU
098.10	GC (ACUTE) UPPER GU NOS
098.11	GC CYSTITIS (ACUTE)
098.12	GC PROSTATITIS (ACUTE)
098.13	GC ORCHITIS (ACUTE)
098.14	GC SEM VESICULIT (ACUTE)
098.15	GC CERVICITIS (ACUTE)
098.16	GC ENDOMETRITIS (ACUTE)
098.17	ACUTE GC SALPINGITIS
098.19	GC (ACUTE) UPPER GU NEC
098.2	CHR GC INFECT LOWER GU
098.30	CHR GC UPPER GU NOS
098.31	GC CYSTITIS, CHRONIC

Table 5.09 Infection

Code	Shortened Description
098.32	GC PROSTATITIS, CHRONIC
098.33	GC ORCHITIS, CHRONIC
098.34	GC SEM VESICULITIS, CHR
098.35	GC CERVICITIS, CHRONIC
098.36	GC ENDOMETRITIS, CHRONIC
098.37	GC SALPINGITIS (CHRONIC)
098.39	CHR GC UPPER GU NEC
098.40	GONOCOCCAL CONJUNCTIVIT
098.41	GONOCOCCAL IRIDOCYCLITIS
098.42	GONOCOCCAL ENDOPHTHALMIA
098.43	GONOCOCCAL KERATITIS
098.49	GONOCOCCAL EYE NEC
098.50	GONOCOCCAL ARTHRITIS
098.51	GONOCOCCAL SYNOVITIS
098.52	GONOCOCCAL BURSITIS
098.53	GONOCOCCAL SPONDYLITIS
098.59	GC INFECT JOINT NEC
098.6	GONOCOCCAL INFEC PHARYNX
098.7	GC INFECT ANUS & RECTUM
098.81	GONOCOCCAL KERATOSIS
098.82	GONOCOCCAL MENINGITIS
098.83	GONOCOCCAL PERICARDITIS
098.84	GONOCOCCAL ENDOCARDITIS
098.85	GONOCOCCAL HEART DIS NEC
098.86	GONOCOCCAL PERITONITIS
098.89	GONOCOCCAL INF SITE NEC
099.0	CHANCROID
099.1	LYMPHOGRANULOMA VENEREUM
099.2	GRANULOMA INGUINALE
099.3	REITER'S DISEASE
099.40	UNSPCF NONGNCCCL URETHRTS
099.41	CHLMYD TRACHOMATIS URETH
099.49	NONGC URTH OTH SPF ORGSM
099.50	OTH VD CHLM TRCH UNSP ST
099.51	OTH VD CHLM TRCH PHARYNX
099.52	OTH VD CHLM TRCH ANS RCT
099.53	OTH VD CHLM TRCH LOWR GU
099.54	OTH VD CHLM TRCH OTH GU
099.55	OT VD CHLM TRCH UNSPF GU
099.56	OT VD CHLM TRCH PRTONEUM
099.59	OTH VD CHLM TRCH SPCF ST
099.8	VENEREAL DISEASE NEC
099.9	VENEREAL DISEASE NOS
100.0	LEPTOSPIROS ICTEROHEM
100.81	LEPTOSPIRAL MENINGITIS

Table 5.09 Infection

Code	Shortened Description
100.89	LEPTOSPIRAL INFECT NEC
100.9	LEPTOSPIROSIS NOS
101	VINCENT'S ANGINA
102.0	INITIAL LESIONS YAWS
102.1	MULTIPLE PAPILOMATA
102.2	EARLY SKIN YAWS NEC
102.3	HYPERKERATOSIS OF YAWS
102.4	GUMMATA AND ULCERS, YAWS
102.5	GANGOSA
102.6	YAWS OF BONE & JOINT
102.7	YAWS MANIFESTATIONS NEC
102.8	LATENT YAWS
102.9	YAWS NOS
103.0	PINTA PRIMARY LESIONS
103.1	PINTA INTERMED LESIONS
103.2	PINTA LATE LESIONS
103.3	PINTA MIXED LESIONS
103.9	PINTA NOS
104.0	NONVENEREAL ENDEMIC SYPH
104.8	SPIROCHETAL INFECT NEC
104.9	SPIROCHETAL INFECT NOS
130.0	TOXOPLASM MENINGOENCEPH
130.1	TOXOPLASM CONJUNCTIVITIS
130.2	TOXOPLASM CHORIORETINIT
130.3	TOXOPLASMA MYOCARDITIS
130.4	TOXOPLASMA PNEUMONITIS
130.5	TOXOPLASMA HEPATITIS
130.7	TOXOPLASMOSIS SITE NEC
130.8	MULTISYSTEM TOXOPLASMOS
131.00	UROGENITAL TRICHOMON NOS
131.01	TRICHOMONAL VAGINITIS
131.02	TRICHOMONAL URETHRITIS
131.03	TRICHOMONAL PROSTATITIS
131.09	UROGENITAL TRICHOMON NEC
131.8	TRICHOMONIASIS NEC
131.9	TRICHOMONIASIS NOS
320.0	HEMOPHILUS MENINGITIS
320.1	PNEUMOCOCCAL MENINGITIS
320.2	STREPTOCOCCAL MENINGITIS
320.3	STAPHYLOCOCC MENINGITIS
320.7	MENING IN OTH BACT DIS
320.81	ANAEROBIC MENINGITIS
320.82	MNINGTS GRAM-NEG BCT NEC
320.89	MENINGITIS OTH SPCF BACT
320.9	BACTERIAL MENINGITIS NOS

Table 5.09 Infection	
Code	Shortened Description
322.9	MENINGITIS NOS
323.1	RICKETTSIAL ENCEPHALITIS
324.0	INTRACRANIAL ABSCESS
324.1	INTRASPINAL ABSCESS
324.9	CNS ABSCESS NOS
380.10	INFECTION OTITIS EXTERNA NOS
380.11	ACUTE INFECTION OF PINNA
380.12	ACUTE SWIMMERS' EAR
380.13	ACUTE INFECTION EXTERNAL EAR NEC
380.14	MALIGNANT OTITIS EXTERNA
380.15	CHRONIC MYCOBACTERIAL OTITIS EXTERNA
380.16	CHRONIC INFECTION OTITIS EXTERNA NEC
380.21	CHOLESTEATOMA EXTERNAL EAR
380.22	ACUTE OTITIS EXTERNA NEC
380.23	CHRONIC OTITIS EXTERNA NEC
382.00	ACUTE SUPPURATIVE OTITIS MEDIA NOS
382.01	ACUTE SUPPURATIVE OTITIS MEDIA WITH DRUM RUPTURE
382.02	ACUTE SUPPURATIVE OTITIS MEDIA IN OTHER DISORDERS
382.1	CHRONIC TUBOTYMPANIC SUPPURATIVE OTITIS MEDIA
382.2	CHRONIC ATTICOANTRAL SUPPURATIVE OTITIS MEDIA
421.0	ACUTE/SUBACUTE BACTERIAL ENDOCARDITIS
421.1	ACUTE ENDOCARDITIS IN OTHER DISORDERS
421.9	ACUTE/SUBACUTE ENDOCARDITIS NOS
422.0	ACUTE MYOCARDITIS IN OTHER DISORDERS
422.90	ACUTE MYOCARDITIS NOS
422.91	IDIOPATHIC MYOCARDITIS
422.92	SEPTIC MYOCARDITIS
422.93	TOXIC MYOCARDITIS
422.99	ACUTE MYOCARDITIS NEC
462	ACUTE PHARYNGITIS
463	ACUTE TONSILLITIS
464.00	ACUTE LARYNGITIS WITHOUT OBSTRUCTION
464.01	ACUTE LARYNGITIS WITH OBSTRUCTION
464.10	ACUTE TRACHEITIS WITHOUT OBSTRUCTION
464.11	ACUTE TRACHEITIS WITH OBSTRUCTION
464.20	ACUTE LARYNGOTRACHEITIS WITHOUT OBSTRUCTION
464.21	ACUTE LARYNGOTRACHEITIS WITH OBSTRUCTION
464.30	ACUTE EPIGLOTTITIS WITHOUT OBSTRUCTION
464.31	ACUTE EPIGLOTTITIS WITH OBSTRUCTION
464.50	SUPRAGLOTTITIS WITHOUT OBSTRUCTION NOS
464.51	SUPRAGLOTTITIS WITH OBSTRUCTION NOS
475	PERITONSILLARY ABSCESS
476.0	CHRONIC LARYNGITIS
476.1	CHRONIC LARYNGOTRACHEITIS
481	PNEUMOCOCCAL PNEUMONIA

Table 5.09 Infection	
Code	Shortened Description
482.0	K. PNEUMONIAE PNEUMONIA
482.1	PSEUDOMONAL PNEUMONIA
482.2	H.INFLUENZAE PNEUMONIA
482.30	STREPTOCOCCAL PNEUMN NOS
482.31	PNEUMONIA STRPTOCOCCUS A
482.32	PNEUMONIA STRPTOCOCCUS B
482.39	PNEUMONIA OTH STREP
482.40	STAPHYLOCOCCAL PNEU NOS
482.41	METH SUS PNEUM D/T STAPH
482.42	METH RES PNEU D/T STAPH
482.49	STAPH PNEUMONIA NEC
482.81	PNEUMONIA ANAEROBES
482.82	PNEUMONIA E COLI
482.83	PNEUMO OTH GRM-NEG BACT
482.84	LEGIONNAIRES' DISEASE
482.89	PNEUMONIA OTH SPCF BACT
482.9	BACTERIAL PNEUMONIA NOS
483.0	PNEU MYCPLSM PNEUMONIAE
483.1	PNEUMONIA D/T CHLAMYDIA
483.8	PNEUMON OTH SPEC ORGNSM
484.1	PNEUM W CYTOMEG INCL DIS
484.3	PNEUMONIA IN WHOOP COUGH
484.5	PNEUMONIA IN ANTHRAX
484.6	PNEUM IN ASPERGILLOSIS
484.7	PNEUM IN OTH SYS MYCOSES
484.8	PNEUM IN INFECT DIS NEC
485	BRONCHOPNEUMONIA ORG NOS
486	PNEUMONIA, ORGANISM NOS
487.0	INFLUENZA WITH PNEUMONIA
487.1	FLU W RESP MANIFEST NEC
487.8	FLU W MANIFESTATION NEC
490	BRONCHITIS NOS
491.0	SIMPLE CHR BRONCHITIS
491.1	MUCOPURUL CHR BRONCHITIS
491.20	OBST CHR BRONC W/O EXAC
491.21	OBS CHR BRONC W(AC) EXAC
491.22	OBS CHR BRONC W AC BRONC
491.8	CHRONIC BRONCHITIS NEC
491.9	CHRONIC BRONCHITIS NOS
510.0	EMPHYEMA WITH FISTULA
510.9	EMPHYEMA W/O FISTULA
513.0	ABSCESS OF LUNG
513.1	ABSCESS OF MEDIASTINUM
540.0	AC APPEND W PERITONITIS
540.1	ABSCESS OF APPENDIX

Table 5.09 Infection	
Code	Shortened Description
540.9	ACUTE APPENDICITIS NOS
541	APPENDICITIS NOS
542	OTHER APPENDICITIS
562.01	DVRTCLI SML INT W/O HMRG
562.11	DVRTCLI COLON W/O HMRHG
562.13	DVRTCLI COLON W HMRHG
566	ANAL & RECTAL ABSCESS
567.21	PERITONITIS (ACUTE) GEN
567.22	PERITONEAL ABSCESS
567.23	SPONTAN BACT PERITONITIS
567.29	SUPPURAT PERITONITIS NEC
567.31	PSOAS MUSCLE ABSCESS
567.38	RETROPERITON ABSCESS NEC
567.39	RETROPERITON INFECT NEC
567.81	CHOLEPERITONITIS
567.82	SCLEROSING MESENTERITIS
567.89	PERITONITIS NEC
567.9	PERITONITIS NOS
569.5	INTESTINAL ABSCESS
569.61	COLOSTY/ENTEROST INFECTN
575.0	ACUTE CHOLECYSTITIS
590.00	CHR PYELONEPHRITIS NOS
590.01	CHR PYELONEPH W MED NECR
590.10	AC PYELONEPHRITIS NOS
590.11	AC PYELONEPHR W MED NECR
590.2	RENAL/PERIRENAL ABSCESS
590.3	PYELOURETERITIS CYSTICA
590.80	PYELONEPHRITIS NOS
590.81	PYELONEPHRIT IN OTH DIS
590.9	INFECTION OF KIDNEY NOS
595.0	ACUTE CYSTITIS
599.0	URIN TRACT INFECTION NOS
601.0	ACUTE PROSTATITIS
601.1	CHRONIC PROSTATITIS
601.2	ABSCESS OF PROSTATE
601.3	PROSTATOCYSTITIS
601.4	PROSTATITIS IN OTH DIS
601.8	PROSTATIC INFLAM DIS NEC
601.9	PROSTATITIS NOS
614.0	AC SALPINGO-OOPHORITIS
614.1	CHR SALPINGO-OOPHORITIS
614.2	SALPINGO-OOPHORITIS NOS
614.3	ACUTE PARAMETRITIS
614.4	CHRONIC PARAMETRITIS
614.5	AC PELV PERITONITIS-FEM

Table 5.09 Infection

Code	Shortened Description
614.7	CHR PELV PERITON NEC-FEM
616.2	BARTHOLIN'S GLAND CYST
616.3	BARTHOLIN'S GLND ABSCESS
616.4	ABSCESS OF VULVA NEC
639.0	POSTABORTION GU INFECT
646.60	GU INFECT IN PREG- UNSPEC
646.61	GU INFECTION-DELIVERED
646.62	GU INFECTION-DELIV W P/P
646.63	GU INFECTION-ANTEPARTUM
646.64	GU INFECTION-POSTPARTUM
670.00	MAJ PUERP INF NOS-UNSP
670.02	MAJ PUER INF NOS-DEL P/P
670.04	MAJOR PUERP INF NOS-P/P
674.30	OB SURG COMPL NEC-UNSPEC
674.32	OB SURG COMPL-DEL W P/P
674.34	OB SURG COMP NEC- POSTPAR
680.0	CARBUNCLE OF FACE
680.1	CARBUNCLE OF NECK
680.2	CARBUNCLE OF TRUNK
680.3	CARBUNCLE OF ARM
680.4	CARBUNCLE OF HAND
680.5	CARBUNCLE OF BUTTOCK
680.6	CARBUNCLE OF LEG
680.7	CARBUNCLE OF FOOT
680.8	CARBUNCLE, SITE NEC
680.9	CARBUNCLE NOS
681.00	CELLULITIS, FINGER NOS
681.01	FELON
681.02	ONYCHIA OF FINGER
681.10	CELLULITIS, TOE NOS
681.11	ONYCHIA OF TOE
681.9	CELLULITIS OF DIGIT NOS
682.0	CELLULITIS OF FACE
682.1	CELLULITIS OF NECK
682.2	CELLULITIS OF TRUNK
682.3	CELLULITIS OF ARM
682.4	CELLULITIS OF HAND
682.5	CELLULITIS OF BUTTOCK
682.6	CELLULITIS OF LEG
682.7	CELLULITIS OF FOOT
682.8	CELLULITIS, SITE NEC
682.9	CELLULITIS NOS
683	ACUTE LYMPHADENITIS
684	IMPETIGO
685.0	PILONIDAL CYST W ABSCESS

Table 5.09 Infection	
Code	Shortened Description
685.1	PILONIDAL CYST W/O ABSC
686.00	PYODERMA NOS
686.01	PYODERMA GANGRENOSUM
686.09	PYODERMA NEC
686.1	PYOGENIC GRANULOMA
686.8	LOCAL SKIN INFECTION NEC
686.9	LOCAL SKIN INFECTION NOS
711.90	INF ARTHRITIS NOS-UNSPEC
711.91	INF ARTHRITIS NOS-SHLDER
711.92	INF ARTHRITIS NOS-UP/ARM
711.93	INF ARTHRIT NOS-FOREARM
711.94	INF ARTHRIT NOS-HAND
711.95	INF ARTHRIT NOS-PELVIS
711.96	INF ARTHRIT NOS-L/LEG
711.97	INF ARTHRIT NOS-ANKLE
711.98	INF ARTHRIT NOS-OTH SITE
711.99	INF ARTHRITIS NOS-MULT
730.00	AC OSTEOMYELITIS-UNSPEC
730.01	AC OSTEOMYELITIS-SHLDER
730.02	AC OSTEOMYELITIS-UP/ARM
730.03	AC OSTEOMYELITIS-FOREARM
730.04	AC OSTEOMYELITIS-HAND
730.05	AC OSTEOMYELITIS-PELVIS
730.06	AC OSTEOMYELITIS-L/LEG
730.07	AC OSTEOMYELITIS-ANKLE
730.08	AC OSTEOMYELITIS NEC
730.09	AC OSTEOMYELITIS-MULT
730.10	CHR OSTEOMYELITIS-UNSP
730.11	CHR OSTEOMYELIT-SHLDER
730.12	CHR OSTEOMYELIT-UP/ARM
730.13	CHR OSTEOMYELIT-FOREARM
730.14	CHR OSTEOMYELIT-HAND
730.15	CHR OSTEOMYELIT-PELVIS
730.16	CHR OSTEOMYELIT-L/LEG
730.17	CHR OSTEOMYELIT-ANKLE
730.18	CHR OSTEOMYELIT NEC
730.19	CHR OSTEOMYELIT-MULT
730.20	OSTEOMYELITIS NOS-UNSPEC
730.21	OSTEOMYELITIS NOS-SHLDER
730.22	OSTEOMYELITIS NOS-UP/ARM
730.23	OSTEOMYELIT NOS-FOREARM
730.24	OSTEOMYELITIS NOS-HAND
730.25	OSTEOMYELITIS NOS-PELVIS
730.26	OSTEOMYELITIS NOS-L/LEG
730.27	OSTEOMYELITIS NOS-ANKLE

Table 5.09 Infection	
Code	Shortened Description
730.28	OSTEOMYELIT NOS-OTH SITE
730.29	OSTEOMYELITIS NOS-MULT
730.30	PERIOSTITIS-UNSPEC
730.31	PERIOSTITIS-SHLDER
730.32	PERIOSTITIS-UP/ARM
730.33	PERIOSTITIS-FOREARM
730.34	PERIOSTITIS-HAND
730.35	PERIOSTITIS-PELVIS
730.70	POLIO OSTEOPATHY-UNSPEC
730.71	POLIO OSTEOPATHY-SHLDER
730.72	POLIO OSTEOPATHY-UP/ARM
730.73	POLIO OSTEOPATHY-FOREARM
730.74	POLIO OSTEOPATHY-HAND
730.75	POLIO OSTEOPATHY-PELVIS
730.76	POLIO OSTEOPATHY-L/LEG
730.77	POLIO OSTEOPATHY-ANKLE
730.78	POLIO OSTEOPATHY NEC
730.79	POLIO OSTEOPATHY-MULT
730.80	BONE INFECT NEC-UNSPEC
730.81	BONE INFECT NEC-SHLDER
730.82	BONE INFECT NEC-UP/ARM
730.83	BONE INFECT NEC-FOREARM
730.84	BONE INFECT NEC-HAND
730.85	BONE INFECT NEC-PELVIS
730.86	BONE INFECT NEC-L/LEG
730.87	BONE INFECT NEC-ANKLE
730.88	BONE INFECT NEC-OTH SITE
730.89	BONE INFECT NEC-MULT
730.90	BONE INFEC NOS-UNSP SITE
730.91	BONE INFECT NOS-SHLDER
730.92	BONE INFECT NOS-UP/ARM
730.93	BONE INFECT NOS-FOREARM
730.94	BONE INFECT NOS-HAND
730.95	BONE INFECT NOS-PELVIS
730.96	BONE INFECT NOS-L/LEG
730.97	BONE INFECT NOS-ANKLE
730.98	BONE INFECT NOS-OTH SITE
730.99	BONE INFECT NOS-MULT
785.52	SEPTIC SHOCK
790.7	BACTEREMIA
996.60	REACTION-UNSP DEVIC/GRFT
996.61	REACT-CARDIAC DEV/GRAFT
996.62	REACT-OTH VASC DEV/GRAFT
996.63	REACT-NERV SYS DEV/GRAFT
996.64	REACT-INDWELL URIN CATH

Table 5.09 Infection

Code	Shortened Description
996.65	REACT-OTH GENITOURIN DEV
996.66	REACT-INTER JOINT PROST
996.67	REACT-OTH INT ORTHO DEV
996.68	REACT- PERITON DIALY CATH
996.69	REACT-INT PROS DEVIC NEC
997.31	VENTLTR ASSOC PNEUMONIA
998.51	INFECTED POSTOP SEROMA
998.59	OTHER POSTOP INFECTION

Last Updated: Version 3.2

Table 5.10 Major Surgery

Code	Shortened Description
00.70	REV HIP REPL-ACETAB/FEM
00.71	REV HIP REPL-ACETAB COMP
00.72	REV HIP REPL-FEM COMP
00.73	REV HIP REPL-LINER/HEAD
00.77	HIP SURFACE, CERMC/POLY
00.80	REV KNEE REPLACEMT-TOTAL
00.81	REV KNEE REPL-TIBIA COMP
00.82	REV KNEE REPL-FEMUR COMP
00.83	REV KNEE REPLACE-PATELLA
00.84	REV KNEE REPL-TIBIA LIN
00.85	RESRF HIP,TOTAL-ACET/FEM
00.86	RESRF HIP,PART-FEM HEAD
00.87	RESRF HIP,PART-ACETABLUM
01.21	CRANIAL SINUS I & D
01.23	REOPEN CRANIOTOMY SITE
01.24	OTHER CRANIOTOMY
01.25	OTHER CRANIECTOMY
01.31	INCISE CEREBRAL MENINGES
01.32	LOBOTOMY & TRACTOTOMY
01.39	OTHER BRAIN INCISION
01.41	THALAMUS OPERATIONS
01.42	GLOBUS PALLIDUS OPS
01.51	EX CEREB MENINGEAL LES
01.52	HEMISPHERECTOMY
01.53	BRAIN LOBECTOMY
01.59	OTHER BRAIN EXCISION
17.31	LAP MUL SEG RES LG INTES
17.32	LAPAROSCOPIC CECECTOMY
17.33	LAP RIGHT HEMICOLECTOMY
17.34	LAP RES TRANSVERSE COLON
17.35	LAP LEFT HEMICOLECTOMY
17.36	LAP SIGMOIDECTOMY

Table 5.10 Major Surgery	
Code	Shortened Description
17.39	LAP PT EX LRG INTEST NEC
32.39	OTH SEG LUNG RESECT NOS
32.49	LOBECTOMY OF LUNG NEC
32.59	OTHER PNEUMONECTOMY NOS
34.51	DECORTICATION OF LUNG
34.59	OTHER PLEURAL EXCISION
34.81	EXCISE DIAPHRAGM LESION
34.82	SUTURE DIAPHRAGM LACERAT
34.83	CLOSE DIAPHRAGM FISTULA
34.84	OTHER DIAPHRAGM REPAIR
34.89	DIAPHRAGM OPERATION NEC
35.10	OPEN VALVULOPLASTY NOS
35.11	OPN AORTIC VALVULOPLASTY
35.12	OPN MITRAL VALVULOPLASTY
35.13	OPN PULMON VALVULOPLASTY
35.14	OPN TRICUS VALVULOPLASTY
35.20	REPLACE HEART VALVE NOS
35.21	REPLACE AORT VALV-TISSUE
35.22	REPLACE AORTIC VALVE NEC
35.23	REPLACE MITR VALV-TISSUE
35.24	REPLACE MITRAL VALVE NEC
35.25	REPLACE PULM VALV-TISSUE
35.26	REPLACE PULMON VALVE NEC
35.27	REPLACE TRIC VALV-TISSUE
35.28	REPLACE TRICUSP VALV NEC
35.31	PAPILLARY MUSCLE OPS
35.32	CHORDAE TENDINEAE OPS
35.33	ANNULOPLASTY
35.34	INFUNDIBULECTOMY
35.35	TRABECUL CARNEAE CORD OP
35.39	TISS ADJ TO VALV OPS NEC
35.42	CREATE SEPTAL DEFECT
35.50	PROSTH REP HRT SEPTA NOS
35.51	PROS REP ATRIAL DEF-OPN
35.53	PROS REP VENTRIC DEF-OPN
35.54	PROS REP ENDOCAR CUSHION
35.60	GRFT REPAIR HRT SEPT NOS
35.61	GRAFT REPAIR ATRIAL DEF
35.62	GRAFT REPAIR VENTRIC DEF
35.63	GRFT REP ENDOCAR CUSHION
35.70	HEART SEPTA REPAIR NOS
35.71	ATRIA SEPTA DEF REP NEC
35.72	VENTR SEPTA DEF REP NEC
35.73	ENDOCAR CUSHION REP NEC
35.81	TOT REPAIR TETRAL FALLOT

Table 5.10 Major Surgery	
Code	Shortened Description
35.82	TOTAL REPAIR OF TAPVC
35.83	TOT REP TRUNCUS ARTERIOS
35.84	TOT COR TRANSPOS GRT VES
35.91	INTERAT VEN RETRN TRANSP
35.92	CONDUIT RT VENT-PUL ART
35.93	CONDUIT LEFT VENTR-AORTA
35.94	CONDUIT ARTIUM-PULM ART
35.98	OTHER HEART SEPTA OPS
35.99	OTHER HEART VALVE OPS
36.03	OPEN CORONRY ANGIOPLASTY
36.10	AORTOCORONARY BYPASS NOS
36.11	AORTOCOR BYPAS-1 COR ART
36.12	AORTOCOR BYPAS-2 COR ART
36.13	AORTOCOR BYPAS-3 COR ART
36.14	AORTCOR BYPAS-4+ COR ART
36.15	1 INT MAM-COR ART BYPASS
36.16	2 INT MAM-COR ART BYPASS
36.17	ABD-CORON ARTERY BYPASS
36.19	HRT REVAS BYPS ANAS NEC
36.31	OPEN CHEST TRANS REVASC
36.91	CORON VESS ANEURYSM REP
36.99	HEART VESSEL OP NEC
37.10	INCISION OF HEART NOS
37.11	CARDIOTOMY
37.32	HEART ANEURYSM EXCISION
37.33	EXC/DEST HRT LESION OPEN
37.35	PARTIAL VENTRICULECTOMY
37.36	EXC LEFT ATRIAL APPENDAG
37.41	IMPL CARDIAC SUPPORT DEV
37.49	HEART/PERICARD REPR NEC
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.55	REM INT BIVENT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.64	REMVE EXT HRT ASSIST SYS
37.66	IMPLANTABLE HRT ASSIST
37.67	IMP CARDIOMYOSTIMUL SYS
38.14	ENDARTERECTOMY OF AORTA
38.16	ABDOMINAL ENDARTERECTOMY
38.18	LOWER LIMB ENDARTERECT
38.34	AORTA RESECTION & ANAST

Table 5.10 Major Surgery	
Code	Shortened Description
38.36	ABD VESSEL RESECT/ANAST
38.37	ABD VEIN RESECT & ANAST
38.44	RESECT ABDM AORTA W REPL
38.48	LEG ARTERY RESEC W REPLA
38.49	LEG VEIN RESECT W REPLAC
38.64	EXCISION OF AORTA
39.25	AORTA-ILIAC-FEMOR BYPASS
39.26	INTRA-ABDOMIN SHUNT NEC
39.29	VASC SHUNT & BYPASS NEC
41.5	TOTAL SPLENECTOMY
42.01	ESOPHAGEAL WEB INCISION
42.09	ESOPHAGEAL INCISION NEC
42.10	ESOPHAGOSTOMY NOS
42.11	CERVICAL ESOPHAGOSTOMY
42.12	ESOPH POUCH EXTERIORIZAT
42.19	EXT FISTULIZAT ESOPH NEC
42.40	ESOPHAGECTOMY NOS
42.41	PARTIAL ESOPHAGECTOMY
42.42	TOTAL ESOPHAGECTOMY
42.51	THORAC ESOPHAGUESOPHAGOS
42.52	THORAC ESOPHAGOGASTROST
42.53	THORAC SM BOWEL INTERPOS
42.54	THORAC ESOPHAGOENTER NEC
42.55	THORAC LG BOWEL INTERPOS
42.56	THORAC ESOPHAGOCOLOS NEC
42.58	THORAC INTERPOSITION NEC
42.59	THORAC ESOPHAG ANAST NEC
42.61	STERN ESOPHAGUESOPHAGOST
42.62	STERN ESOPHAGOGASTROSTOM
42.63	STERN SM BOWEL INTERPOS
42.64	STERN ESOPHAGOENTER NEC
42.65	STERN LG BOWEL INTERPOS
42.66	STERN ESOPHAGOCOLOS NEC
42.68	STERN INTERPOSITION NEC
42.69	STERN ESOPHAG ANAST NEC
42.82	SUTURE ESOPHAGEAL LACER
42.83	ESOPHAGOSTOMY CLOSURE
42.84	ESOPH FISTULA REPAIR NEC
42.85	ESOPHAG STRICTURE REPAIR
42.86	PROD SUBQ TUNNEL NO ANAS
42.87	ESOPHAGEAL GRAFT NEC
42.89	ESOPHAGEAL REPAIR NEC
43.5	PROXIMAL GASTRECTOMY
43.6	DISTAL GASTRECTOMY
43.7	PART GASTREC W JEJ ANAST

Table 5.10 Major Surgery	
Code	Shortened Description
43.81	PART GAST W JEJ TRANSPOS
43.89	PARTIAL GASTRECTOMY NEC
43.91	TOT GAST W INTES INTERPO
43.99	TOTAL GASTRECTOMY NEC
44.00	VAGOTOMY NOS
44.01	TRUNCAL VAGOTOMY
44.02	HIGHLY SELECT VAGOTOMY
44.03	SELECTIVE VAGOTOMY NEC
44.21	DILATE PYLORUS, INCISION
44.29	OTHER PYLOROPLASTY
44.31	HIGH GASTRIC BYPASS
44.39	GASTROENTEROSTOMY NEC
44.40	SUTURE PEPTIC ULCER NOS
44.41	SUT GASTRIC ULCER SITE
44.42	SUTURE DUODEN ULCER SITE
44.5	REVISION GASTRIC ANASTOM
44.61	SUTURE GASTRIC LACERAT
44.63	CLOSE GASTRIC FISTUL NEC
44.64	GASTROPEXY
44.65	ESOPHAGOGASTROPLASTY
44.66	CREAT ESOPHAGASTR SPHINC
44.69	GASTRIC REPAIR NEC
44.91	LIGATE GASTRIC VARICES
44.92	INTRAOP GASTRIC MANIPUL
44.99	GASTRIC OPERATION NEC
45.00	INTESTINAL INCISION NOS
45.01	DUODENAL INCISION
45.02	SMALL BOWEL INCISION NEC
45.03	LARGE BOWEL INCISION
45.31	OTH EXCISE DUODENUM LES
45.32	DESTRUCT DUODEN LES NEC
45.33	LOCAL EXCIS SM BOWEL NEC
45.34	DESTR SM BOWEL LES NEC
45.41	EXCISE LG INTESTINE LES
45.49	DESTRUC LG BOWEL LES NEC
45.50	INTEST SEG ISOLAT NOS
45.51	SM BOWEL SEGMENT ISOLAT
45.52	LG BOWEL SEGMENT ISOLAT
45.61	MULT SEG SM BOWEL EXCIS
45.62	PART SM BOWEL RESECT NEC
45.63	TOTAL REMOVAL SM BOWEL
45.71	OPN MUL SEG LG INTES NEC
45.72	OPEN CECECTOMY NEC
45.73	OPN RT HEMICOLECTOMY NEC
45.74	OPN TRANSV COLON RES NEC

Table 5.10 Major Surgery	
Code	Shortened Description
45.75	OPN LFT HEMICOLECTMY NEC
45.76	OPEN SIGMOIDECTOMY NEC
45.79	PRT LG INTES EXC NEC/NOS
45.82	OP TOT INTR-ABD COLECTMY
45.83	TOT ABD COLECTMY NEC/NOS
45.90	INTESTINAL ANASTOM NOS
45.91	SM-TO-SM BOWEL ANASTOM
45.92	SM BOWEL-RECT STUMP ANAS
45.93	SMALL-TO-LARGE BOWEL NEC
45.94	LG-TO-LG BOWEL ANASTOM
45.95	ANAL ANASTOMOSIS
46.01	SM BOWEL EXTERIORIZATION
46.02	RESECT EXT SEG SM BOWEL
46.03	LG BOWEL EXTERIORIZATION
46.04	RESECT EXT SEG LG BOWEL
46.11	TEMPORARY COLOSTOMY
46.13	PERMANENT COLOSTOMY
46.20	ILEOSTOMY NOS
46.21	TEMPORARY ILEOSTOMY
46.22	CONTINENT ILEOSTOMY
46.23	PERMANENT ILEOSTOMY NEC
46.42	PERICOLOST HERNIA REPAIR
46.43	LG BOWEL STOMA REVIS NEC
46.50	INTEST STOMA CLOSURE NOS
46.51	SM BOWEL STOMA CLOSURE
46.52	LG BOWEL STOMA CLOSURE
46.60	INTESTINAL FIXATION NOS
46.61	SM BOWEL-ABD WALL FIXAT
46.62	SMALL BOWEL FIXATION NEC
46.63	LG BOWEL-ABD WALL FIXAT
46.64	LARGE BOWEL FIXATION NEC
46.71	DUODENAL LACERAT SUTURE
46.72	DUODENAL FISTULA CLOSURE
46.75	SUTURE LG BOWEL LACERAT
46.76	CLOSE LG BOWEL FISTULA
46.79	REPAIR OF INTESTINE NEC
46.91	MYOTOMY OF SIGMOID COLON
46.92	MYOTOMY OF COLON NEC
46.94	REVISE LG BOWEL ANASTOM
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.41	SOAVE SUBMUC RECT RESECT
48.49	PULL-THRU RECT RESEC NEC
48.50	ABDPERNEAL RES RECTM NOS
48.52	OPN ABDPERNEAL RESC REC

Table 5.10 Major Surgery	
Code	Shortened Description
48.59	ABDPERNEAL RESC RECT NEC
48.61	TRANSSAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC
48.72	CLOSURE OF PROCTOSTOMY
48.73	CLOSE RECTAL FIST NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
50.0	HEPATOTOMY
50.21	MARSUPIALIZAT LIVER LES
50.22	PARTIAL HEPATECTOMY
50.29	DESTRUC HEPATIC LES NEC
50.3	HEPATIC LOBECTOMY
51.31	GB-TO-HEPAT DUCT ANAST
51.32	GB-TO-INTESTINE ANASTOM
51.33	GB-TO-PANCREAS ANASTOM
51.34	GB-TO-STOMACH ANASTOMOS
51.35	GALLBLADDER ANASTOM NEC
51.36	CHOLEDOCHOENTEROSTOMY
51.37	HEPATIC DUCT-GI ANASTOM
51.39	BILE DUCT ANASTOMOS NEC
51.41	CDE FOR CALCULUS REMOV
51.42	CDE FOR OBSTRUCTION NEC
51.49	INCIS OBSTR BILE DUC NEC
51.51	COMMON DUCT EXPLORATION
51.59	BILE DUCT INCISION NEC
51.61	EXCIS CYST DUCT REMNANT
51.62	EXCIS AMPULLA OF VATER
51.63	COMMON DUCT EXCIS NEC
51.69	BILE DUCT EXCISION NEC
51.71	SIMPLE SUT-COMMON DUCT
51.72	CHOLEDOCHOPLASTY
51.79	BILE DUCT REPAIR NEC
51.81	SPHINCTER OF ODDI DILAT
51.82	PANCREAT SPHINCTEROTOM
51.83	PANCREAT SPHINCTEROPLAS
51.89	SPHINCT OF ODDI OP NEC
51.91	REPAIR GB LACERATION
51.92	CLOSURE CHOLECYSTOSTOMY
51.93	CLOS BILIARY FISTUL NEC
51.94	REVIS BILE TRACT ANASTOM

Table 5.10 Major Surgery	
Code	Shortened Description
51.95	REMOVE BILE DUCT PROSTH
51.99	BILIARY TRACT OP NEC
52.09	PANCREATOTOMY NEC
52.22	OTHER DESTRU PANCREA LES
52.3	PANCREAT CYST MARSUPIALI
52.4	INT DRAIN PANCREAT CYST
52.51	PROXIMAL PANCREATECTOMY
52.52	DISTAL PANCREATECTOMY
52.53	RAD SUBTOT PANCREATECTOM
52.59	PARTIAL PANCREATECT NEC
52.6	TOTAL PANCREATECTOMY
52.7	RAD PANCREATICODUODENECT
52.92	CANNULATION PANCREA DUC
52.95	PANCREATIC REPAIR NEC
52.96	PANCREATIC ANASTOMOSIS
52.99	PANCREATIC OPERATION NEC
53.72	OPN ABD DIAPHRM HERN NEC
53.75	ABD REP-DIAPHR HERN NOS
53.80	THOR REP-DIAPH HERN NOS
53.81	DIAPHRAGMATIC PLICATION
53.82	PARASTERN HERNIA REPAIR
53.84	OPN THORC DIAPH HERN NEC
54.11	EXPLORATORY LAPAROTOMY
54.12	REOPEN RECENT LAP SITE
54.19	LAPAROTOMY NEC
54.4	DESTRUCT PERITONEAL TISS
54.59	OTH PERITON ADHESIOLYSIS
54.61	RECLOSE POST OP DISRUPT
54.62	DELAYED CLOS ABD WOUND
54.63	ABD WALL SUTURE NEC
54.64	PERITONEAL SUTURE
54.71	REPAIR OF GASTROSCHISIS
54.72	ABDOMEN WALL REPAIR NEC
54.73	PERITONEAL REPAIR NEC
54.74	OMENTAL REPAIR NEC
54.75	MESENTERIC REPAIR NEC
54.92	REMOVE FB FROM PERITON
54.94	CREAT PERITONEOVAS SHUNT
54.95	PERITONEAL INCISION
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
56.51	FORM CUTAN ILEOURETEROST

Table 5.10 Major Surgery	
Code	Shortened Description
56.52	REVIS CUTAN ILEOURETEROS
56.71	URIN DIVERSION TO BOWEL
56.72	REVIS URETEROENTEROSTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.09	PERIREN/URETER INCIS NEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY
65.22	OVARIAN WEDGE RESECTION
65.29	LOCAL DESTR OVA LES NEC
65.39	OTH UNILAT OOPHORECTOMY
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
68.31	LAP SCERVIC HYSTERECTOMY
68.49	TOTAL ABD HYST NEC/NOS
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.69	RADICAL ABD HYST NEC/NOS

Code	Shortened Description
68.79	RADICAL VAG HYST NEC/NOS
81.40	REPAIR OF HIP, NEC
81.51	TOTAL HIP REPLACEMENT
81.52	PARTIAL HIP REPLACEMENT
81.53	REVISE HIP REPLACEMT NOS
81.54	TOTAL KNEE REPLACEMENT
81.55	REVISE KNEE REPLACE NOS

Last Updated: Version 3.2

Code	Shortened Description
35.10	OPEN VALVULOPLASTY NOS
35.11	OPN AORTIC VALVULOPLASTY
35.12	OPN MITRAL VALVULOPLASTY
35.13	OPN PULMON VALVULOPLASTY
35.14	OPN TRICUS VALVULOPLASTY
35.20	REPLACE HEART VALVE NOS
35.21	REPLACE AORT VALV-TISSUE
35.22	REPLACE AORTIC VALVE NEC
35.23	REPLACE MITR VALV-TISSUE
35.24	REPLACE MITRAL VALVE NEC
35.25	REPLACE PULM VALV-TISSUE
35.26	REPLACE PULMON VALVE NEC
35.27	REPLACE TRIC VALV-TISSUE
35.28	REPLACE TRICUSP VALV NEC
35.31	PAPILLARY MUSCLE OPS
35.32	CHORDAE TENDINEAE OPS
35.33	ANNULOPLASTY
35.34	INFUNDIBULECTOMY
35.35	TRABECUL CARNEAE CORD OP
35.39	TISS ADJ TO VALV OPS NEC
35.42	CREATE SEPTAL DEFECT
35.50	PROSTH REP HRT SEPTA NOS
35.51	PROS REP ATRIAL DEF-OPN
35.53	PROS REP VENTRIC DEF-OPN
35.54	PROS REP ENDOCAR CUSHION
35.60	GRFT REPAIR HRT SEPT NOS
35.61	GRAFT REPAIR ATRIAL DEF
35.62	GRAFT REPAIR VENTRIC DEF
35.63	GRFT REP ENDOCAR CUSHION
35.70	HEART SEPTA REPAIR NOS
35.71	ATRIA SEPTA DEF REP NEC
35.72	VENTR SEPTA DEF REP NEC

Table 5.11 Cardiac Surgery	
Code	Shortened Description
35.73	ENDOCAR CUSHION REP NEC
35.81	TOT REPAIR TETRAL FALLOT
35.82	TOTAL REPAIR OF TAPVC
35.83	TOT REP TRUNCUS ARTERIOS
35.84	TOT COR TRANSPOS GRT VES
35.91	INTERAT VEN RETRNR TRANSP
35.92	CONDUIT RT VENT-PUL ART
35.93	CONDUIT LEFT VENTR-AORTA
35.94	CONDUIT ARTIUM-PULM ART
35.98	OTHER HEART SEPTA OPS
35.99	OTHER HEART VALVE OPS
36.03	OPEN CORONRY ANGIOPLASTY
36.10	AORTOCORONARY BYPASS NOS
36.11	AORTOCOR BYPAS-1 COR ART
36.12	AORTOCOR BYPAS-2 COR ART
36.13	AORTOCOR BYPAS-3 COR ART
36.14	AORTCOR BYPAS-4+ COR ART
36.15	1 INT MAM-COR ART BYPASS
36.16	2 INT MAM-COR ART BYPASS
36.17	ABD-CORON ARTERY BYPASS
36.19	HRT REVAS BYPS ANAS NEC
36.31	OPEN CHEST TRANS REVASC
36.91	CORON VESS ANEURYSM REP
36.99	HEART VESSEL OP NEC
37.10	INCISION OF HEART NOS
37.11	CARDIOTOMY
37.32	HEART ANEURYSM EXCISION
37.33	EXC/DEST HRT LESION OPEN
37.35	PARTIAL VENTRICULECTOMY
37.36	EXC LEFT ATRIAL APPENDAG
37.41	IMPL CARDIAC SUPPORT DEV
37.49	HEART/PERICARD REPR NEC
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.55	REM INT BIVENT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.64	REMVE EXT HRT ASSIST SYS
37.66	IMPLANTABLE HRT ASSIST
37.67	IMP CARDIOMYOSTIMUL SYS

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Table 5.13 Hip Fractures	
Code	Shortened Description
733.10	PATH FX UNSPECIFIED SITE
733.14	PATH FX NECK OF FEMUR
733.15	PATH FX OTH SPCF PRT FMR
808.0	FRACTURE ACETABULUM-CLOS
808.1	FRACTURE ACETABULUM-OPEN
808.2	FRACTURE OF PUBIS-CLOSED
808.3	FRACTURE OF PUBIS-OPEN
808.41	FRACTURE OF ILIUM-CLOSED
808.42	FRACTURE ISCHIUM-CLOSED
808.43	PELV FX-CLOS/PELV DISRUP
808.49	PELVIC FRACTURE NEC-CLOS
808.51	FRACTURE OF ILIUM-OPEN
808.52	FRACTURE OF ISCHIUM-OPEN
808.53	PELV FX-OPEN/PELV DISRUP
808.59	PELVIC FRACTURE NEC-OPEN
808.8	PELVIC FRACTURE NOS-CLOS
808.9	PELVIC FRACTURE NOS-OPEN
820.00	FX FEMUR INTRCAPS NOS-CL
820.01	FX UP FEMUR EPIPHY-CLOS
820.02	FX FEMUR, MIDCERVIC-CLOS
820.03	FX BASE FEMORAL NCK-CLOS
820.09	FX FEMUR INTRCAPS NEC-CL
820.10	FX FEMUR INTRCAP NOS-OPN
820.11	FX UP FEMUR EPIPHY-OPEN
820.12	FX FEMUR, MIDCERVIC-OPEN
820.13	FX BASE FEMORAL NCK-OPEN
820.19	FX FEMUR INTRCAP NEC-OPN
820.20	TROCHANTERIC FX NOS-CLOS
820.21	INTERTROCHANTERIC FX-CL
820.22	SUBTROCHANTERIC FX-CLOSE
820.30	TROCHANTERIC FX NOS-OPEN
820.31	INTERTROCHANTERIC FX-OPN
820.32	SUBTROCHANTERIC FX-OPEN
820.8	FX NECK OF FEMUR NOS-CL
820.9	FX NECK OF FEMUR NOS-OPN
821.00	FX FEMUR NOS-CLOSED
821.01	FX FEMUR SHAFT-CLOSED
821.10	FX FEMUR NOS-OPEN
821.11	FX FEMUR SHAFT-OPEN

Table 5.14 Burns	
Code	Shortened Description
692.71	SUNBURN
692.76	2 ND DEGREE SUNBURN
692.77	3 RD DEGREE SUNBURN
692.82	DERMATITIS OTH RADIATION
782.0	SKIN SENSATION DISTURB
906.5	LATE EFF HEAD/NECK BURN
906.6	LATE EFF WRIST/HAND BURN
906.7	LATE EFF BURN EXTREM NEC
906.8	LATE EFFECT OF BURNS NEC
906.9	LATE EFFECT OF BURN NOS
910.0	ABRASION HEAD
910.1	ABRASION HEAD-INFECTED
911.0	ABRASION TRUNK
911.1	ABRASION TRUNK-INFECTED
912.0	ABRASION SHOULDER/ARM
912.1	ABRASION SHLDR/ARM-INFEC
913.0	ABRASION FOREARM
913.1	ABRASION FOREARM-INFECT
914.0	ABRASION HAND
914.1	ABRASION HAND-INFECTED
915.0	ABRASION FINGER
915.1	ABRASION FINGER-INFECTED
916.0	ABRASION HIP & LEG
916.1	ABRASION HIP/LEG-INFECT
917.0	ABRASION FOOT & TOE
917.1	ABRASION FOOT/TOE-INFEC
919.0	ABRASION NEC
919.1	ABRASION NEC-INFECTED
940.0	CHEMICAL BURN PERIOCLAR
940.1	BURN PERIOCLAR AREA NEC
940.2	ALKAL BURN CORNEA/CONJUN
940.3	ACID BURN CORNEA/CONJUNC
940.4	BURN CORNEA/CONJUNCT NEC
940.5	BURN W EYEBALL DESTRUCT
940.9	BURN EYE & ADNEXA NOS
941.00	BURN NOS HEAD-UNSPEC
941.01	BURN NOS EAR
941.02	BURN NOS EYE
941.03	BURN NOS LIP
941.04	BURN NOS CHIN
941.05	BURN NOS NOSE
941.06	BURN NOS SCALP

Table 5.14 Burns	
Code	Shortened Description
941.07	BURN NOS FACE NEC
941.08	BURN NOS NECK
941.09	BURN NOS HEAD-MULT
941.10	1ST DEG BURN HEAD NOS
941.11	1ST DEG BURN EAR
941.12	1ST DEG BURN EYE
941.13	1ST DEG BURN LIP
941.14	1ST DEG BURN CHIN
941.15	1ST DEG BURN NOSE
941.16	1ST DEG BURN SCALP
941.17	1ST DEG BURN FACE NEC
941.18	1ST DEG BURN NECK
941.19	1ST DEG BURN HEAD-MULT
941.20	2ND DEG BURN HEAD NOS
941.21	2ND DEG BURN EAR
941.22	2ND DEG BURN EYE
941.23	2ND DEG BURN LIP
941.24	2ND DEG BURN CHIN
941.25	2ND DEG BURN NOSE
941.26	2ND DEG BURN SCALP
941.27	2ND DEG BURN FACE NEC
941.28	2ND DEG BURN NECK
941.29	2ND DEG BURN HEAD-MULT
941.30	3RD DEG BURN HEAD NOS
941.31	3RD DEG BURN EAR
941.32	3RD DEG BURN EYE
941.33	3RD DEG BURN LIP
941.34	3RD DEG BURN CHIN
941.35	3RD DEG BURN NOSE
941.36	3RD DEG BURN SCALP
941.37	3RD DEG BURN FACE NEC
941.38	3RD DEG BURN NECK
941.39	3RD DEG BURN HEAD-MULT
941.40	DEEP 3 DEG BURN HEAD NOS
941.41	DEEP 3RD DEG BURN EAR
941.42	DEEP 3RD DEG BURN EYE
941.43	DEEP 3RD DEG BURN LIP
941.44	DEEP 3RD DEG BURN CHIN
941.45	DEEP 3RD DEG BURN NOSE
941.46	DEEP 3RD DEG BURN SCALP
941.47	DEEP 3RD BURN FACE NEC
941.48	DEEP 3RD DEG BURN NECK
941.49	DEEP 3 DEG BRN HEAD-MULT
941.50	3RD BURN W LOSS-HEAD NOS

Table 5.14 Burns	
Code	Shortened Description
941.51	3RD DEG BURN W LOSS-EAR
941.52	3RD DEG BURN W LOSS-EYE
941.53	3RD DEG BURN W LOSS-LIP
941.54	3RD DEG BURN W LOSS-CHIN
941.55	3RD DEG BURN W LOSS-NOSE
941.56	3RD DEG BRN W LOSS-SCALP
941.57	3RD BURN W LOSS-FACE NEC
941.58	3RD DEG BURN W LOSS-NECK
941.59	3RD BRN W LOSS-HEAD MULT
942.00	BURN NOS TRUNK-UNSPEC
942.01	BURN NOS BREAST
942.02	BURN NOS CHEST WALL
942.03	BURN NOS ABDOMINAL WALL
942.04	BURN NOS BACK
942.05	BURN NOS GENITALIA
942.09	BURN NOS TRUNK NEC
942.10	1ST DEG BURN TRUNK NOS
942.11	1ST DEG BURN BREAST
942.12	1ST DEG BURN CHEST WALL
942.13	1ST DEG BURN ABDOMN WALL
942.14	1ST DEG BURN BACK
942.15	1ST DEG BURN GENTIALIA
942.19	1ST DEG BURN TRUNK NEC
942.20	2ND DEG BURN TRUNK NOS
942.21	2ND DEG BURN BREAST
942.22	2ND DEG BURN CHEST WALL
942.23	2ND DEG BURN ABDOMN WALL
942.24	2ND DEG BURN BACK
942.25	2ND DEG BURN GENITALIA
942.29	2ND DEG BURN TRUNK NEC
942.30	3RD DEG BURN TRUNK NOS
942.31	3RD DEG BURN BREAST
942.32	3RD DEG BURN CHEST WALL
942.33	3RD DEG BURN ABDOMN WALL
942.34	3RD DEG BURN BACK
942.35	3RD DEG BURN GENITALIA
942.39	3RD DEG BURN TRUNK NEC
942.40	DEEP 3RD BURN TRUNK NOS
942.41	DEEP 3RD DEG BURN BREAST
942.42	DEEP 3RD BURN CHEST WALL
942.43	DEEP 3RD BURN ABDOM WALL
942.44	DEEP 3RD DEG BURN BACK
942.45	DEEP 3RD BURN GENITALIA
942.49	DEEP 3RD BURN TRUNK NEC

Table 5.14 Burns	
Code	Shortened Description
942.50	3RD BRN W LOSS-TRUNK NOS
942.51	3RD BURN W LOSS-BREAST
942.52	3RD BRN W LOSS-CHEST WLL
942.53	3RD BRN W LOSS-ABDOM WLL
942.54	3RD DEG BURN W LOSS-BACK
942.55	3RD BRN W LOSS-GENITALIA
942.59	3RD BRN W LOSS-TRUNK NEC
943.00	BURN NOS ARM-UNSPEC
943.01	BURN NOS FOREARM
943.02	BURN NOS ELBOW
943.03	BURN NOS UPPER ARM
943.04	BURN NOS AXILLA
943.05	BURN NOS SHOULDER
943.06	BURN NOS SCAPULA
943.09	BURN NOS ARM-MULTIPLE
943.10	1ST DEG BURN ARM NOS
943.11	1ST DEG BURN FOREARM
943.12	1ST DEG BURN ELBOW
943.13	1ST DEG BURN UPPER ARM
943.14	1ST DEG BURN AXILLA
943.15	1ST DEG BURN SHOULDER
943.16	1ST DEG BURN SCAPULA
943.19	1ST DEG BURN ARM-MULT
943.20	2ND DEG BURN ARM NOS
943.21	2ND DEG BURN FOREARM
943.22	2ND DEG BURN ELBOW
943.23	2ND DEG BURN UPPER ARM
943.24	2ND DEG BURN AXILLA
943.25	2ND DEG BURN SHOULDER
943.26	2ND DEG BURN SCAPULA
943.29	2ND DEG BURN ARM-MULT
943.30	3RD DEG BURN ARM NOS
943.31	3RD DEG BURN FOREARM
943.32	3RD DEG BURN ELBOW
943.33	3RD DEG BURN UPPER ARM
943.34	3RD DEG BURN AXILLA
943.35	3RD DEG BURN SHOULDER
943.36	3RD DEG BURN SCAPULA
943.39	3RD DEG BURN ARM-MULT
943.40	DEEP 3 DEG BURN ARM NOS
943.41	DEEP 3 DEG BURN FOREARM
943.42	DEEP 3 DEG BURN ELBOW
943.43	DEEP 3 DEG BRN UPPER ARM
943.44	DEEP 3 DEG BURN AXILLA

Table 5.14 Burns	
Code	Shortened Description
943.45	DEEP 3 DEG BURN SHOULDER
943.46	DEEP 3 DEG BURN SCAPULA
943.49	DEEP 3 DEG BURN ARM-MULT
943.50	3RD BURN W LOSS-ARM NOS
943.51	3RD BURN W LOSS-FOREARM
943.52	3RD BURN W LOSS-ELBOW
943.53	3RD BRN W LOSS-UPPER ARM
943.54	3RD BURN W LOSS-AXILLA
943.55	3RD BURN W LOSS-SHOULDER
943.56	3RD BURN W LOSS-SCAPULA
943.59	3RD BURN W LOSS-ARM MULT
944.00	BURN NOS HAND-UNSPEC
944.01	BURN NOS FINGER
944.02	BURN NOS THUMB
944.03	BURN NOS MULT FINGERS
944.04	BURN NOS FINGER W THUMB
944.05	BURN NOS PALM
944.06	BURN NOS BACK OF HAND
944.07	BURN NOS WRIST
944.08	BURN NOS HAND-MULTIPLE
944.10	1ST DEG BURN HAND NOS
944.11	1ST DEG BURN FINGER
944.12	1ST DEG BURN THUMB
944.13	1ST DEG BURN MULT FINGER
944.14	1 DEG BURN FINGR W THUMB
944.15	1ST DEG BURN PALM
944.16	1 DEG BURN BACK OF HAND
944.17	1ST DEG BURN WRIST
944.18	1ST DEG BURN HAND-MULT
944.20	2ND DEG BURN HAND NOS
944.21	2ND DEG BURN FINGER
944.22	2ND DEG BURN THUMB
944.23	2ND DEG BURN MULT FINGER
944.24	2 DEG BURN FINGR W THUMB
944.25	2ND DEG BURN PALM
944.26	2 DEG BURN BACK OF HAND
944.27	2ND DEG BURN WRIST
944.28	2ND DEG BURN HAND-MULT
944.30	3RD DEG BURN HAND NOS
944.31	3RD DEG BURN FINGER
944.32	3RD DEG BURN THUMB
944.33	3RD DEG BURN MULT FINGER
944.34	3 DEG BURN FINGR W THUMB
944.35	3RD DEG BURN PALM

Table 5.14 Burns	
Code	Shortened Description
944.36	3 DEG BURN BACK OF HAND
944.37	3RD DEG BURN WRIST
944.38	3RD DEG BURN HAND-MULT
944.40	DEEP 3 DEG BRN HAND NOS
944.41	DEEP 3 DEG BURN FINGER
944.42	DEEP 3 DEG BURN THUMB
944.43	DEEP 3RD BRN MULT FINGER
944.44	DEEP 3RD BRN FNGR W THMB
944.45	DEEP 3 DEG BURN PALM
944.46	DEEP 3RD BRN BACK OF HND
944.47	DEEP 3 DEG BURN WRIST
944.48	DEEP 3 DEG BRN HAND-MULT
944.50	3RD BRN W LOSS-HAND NOS
944.51	3RD BURN W LOSS-FINGER
944.52	3RD BURN W LOSS-THUMB
944.53	3RD BRN W LOSS-MULT FNGR
944.54	3RD BRN W LOSS-FNGR/THMB
944.55	3RD BURN W LOSS-PALM
944.56	3RD BRN W LOSS-BK OF HND
944.57	3RD BURN W LOSS-WRIST
944.58	3RD BRN W LOSS HAND-MULT
945.00	BURN NOS LEG-UNSPEC
945.01	BURN NOS TOE
945.02	BURN NOS FOOT
945.03	BURN NOS ANKLE
945.04	BURN NOS LOWER LEG
945.05	BURN NOS KNEE
945.06	BURN NOS THIGH
945.09	BURN NOS LEG-MULTIPLE
945.10	1ST DEG BURN LEG NOS
945.11	1ST DEG BURN TOE
945.12	1ST DEG BURN FOOT
945.13	1ST DEG BURN ANKLE
945.14	1ST DEG BURN LOWER LEG
945.15	1ST DEG BURN KNEE
945.16	1ST DEG BURN THIGH
945.19	1ST DEG BURN LEG-MULT
945.20	2ND DEG BURN LEG NOS
945.21	2ND DEG BURN TOE
945.22	2ND DEG BURN FOOT
945.23	2ND DEG BURN ANKLE
945.24	2ND DEG BURN LOWER LEG
945.25	2ND DEG BURN KNEE
945.26	2ND DEG BURN THIGH

Table 5.14 Burns	
Code	Shortened Description
945.29	2ND DEG BURN LEG-MULT
945.30	3RD DEG BURN LEG NOS
945.31	3RD DEG BURN TOE
945.32	3RD DEG BURN FOOT
945.33	3RD DEG BURN ANKLE
945.34	3RD DEG BURN LOW LEG
945.35	3RD DEG BURN KNEE
945.36	3RD DEG BURN THIGH
945.39	3RD DEG BURN LEG-MULT
945.40	DEEP 3RD DEG BRN LEG NOS
945.41	DEEP 3RD DEG BURN TOE
945.42	DEEP 3RD DEG BURN FOOT
945.43	DEEP 3RD DEG BURN ANKLE
945.44	DEEP 3RD DEG BRN LOW LEG
945.45	DEEP 3RD DEG BURN KNEE
945.46	DEEP 3RD DEG BURN THIGH
945.49	DEEP 3 DEG BURN LEG-MULT
945.50	3 DEG BRN W LOSS-LEG NOS
945.51	3 DEG BURN W LOSS-TOE
945.52	3 DEG BURN W LOSS-FOOT
945.53	3 DEG BURN W LOSS-ANKLE
945.54	3 DEG BRN W LOSS-LOW LEG
945.55	3 DEG BURN W LOSS-KNEE
945.56	3 DEG BURN W LOSS-THIGH
945.59	3 DEG BRN W LOSS LEG-MLT
946.0	BURN NOS MULTIPLE SITE
946.1	1ST DEG BURN MULT SITE
946.2	2ND DEG BURN MULT SITE
946.3	3RD DEG BURN MULT SITE
946.4	DEEP 3 DEG BRN MULT SITE
946.5	3 RD BRN W LOSS-MULT SITE
947.8	BURN INTERNAL ORGAN NEC
947.9	BURN INTERNAL ORGAN NOS
948.00	BDY BRN < 10%/3D DEG NOS
948.10	10-19% BDY BRN/3 DEG NOS
948.11	10-19% BDY BRN/10-19% 3D
948.20	20-29% BDY BRN/3 DEG NOS
948.21	20-29% BDY BRN/10-19% 3D
948.22	20-29% BDY BRN/20-29% 3D
948.30	30-39% BDY BRN/3 DEG NOS
948.31	30-39% BDY BRN/10-19% 3D
948.32	30-39% BDY BRN/20-29% 3D
948.33	30-39% BDY BRN/30-39% 3D
948.40	40-49% BDY BRN/3 DEG NOS

Table 5.14 Burns	
Code	Shortened Description
948.41	40-49% BDY BRN/10-19% 3D
948.42	40-49% BDY BRN/20-29% 3D
948.43	40-49% BDY BRN/30-39% 3D
948.44	40-49% BDY BRN/40-49% 3D
948.50	50-59% BDY BRN/3 DEG NOS
948.51	50-59% BDY BRN/10-19% 3D
948.52	50-59% BDY BRN/20-29% 3D
948.53	50-59% BDY BRN/30-39% 3D
948.54	50-59% BDY BRN/40-49% 3D
948.55	50-59% BDY BRN/50-59% 3D
948.60	60-69% BDY BRN/3 DEG NOS
948.61	60-69% BDY BRN/10-19% 3D
948.62	60-69% BDY BRN/20-29% 3D
948.63	60-69% BDY BRN/30-39% 3D
948.64	60-69% BDY BRN/40-49% 3D
948.65	60-69% BDY BRN/50-59% 3D
948.66	60-69% BDY BRN/60-69% 3D
948.70	70-79% BDY BRN/3 DEG NOS
948.71	70-79% BDY BRN/10-19% 3D
948.72	70-79% BDY BRN/20-29% 3D
948.73	70-79% BDY BRN/30-39% 3D
948.74	70-79% BDY BRN/40-49% 3D
948.75	70-79% BDY BRN/50-59% 3D
948.76	70-79% BDY BRN/60-69% 3D
948.77	70-79% BDY BRN/70-79% 3D
948.80	80-89% BDY BRN/3 DEG NOS
948.81	80-89% BDY BRN/10-19% 3D
948.82	80-89% BDY BRN/20-29% 3D
948.83	80-89% BDY BRN/30-39% 3D
948.84	80-89% BDY BRN/40-49% 3D
948.85	80-89% BDY BRN/50-59% 3D
948.86	80-89% BDY BRN/60-69% 3D
948.87	80-89% BDY BRN/70-79% 3D
948.88	80-89% BDY BRN/80-89% 3D
948.90	90% + BDY BRN/3 DEG NOS
948.91	90% + BDY BRN/10-19% 3RD
948.92	90% + BDY BRN/20-29% 3RD
948.93	90% + BDY BRN/30-39% 3RD
948.94	90% + BDY BRN/40-49% 3RD
948.95	90% + BDY BRN/50-59% 3RD
948.96	90% + BDY BRN/60-69% 3RD
948.97	90% + BDY BRN/70-79% 3RD
948.98	90% + BDY BRN/80-89% 3RD
948.99	90% + BDY BRN/90% + 3 RD

Table 5.14 Burns	
Code	Shortened Description
949.0	BURN NOS
949.1	1ST DEGREE BURN NOS
949.2	2ND DEGREE BURN NOS
949.3	3RD DEGREE BURN NOS
949.4	DEEP 3RD DEG BURN NOS
949.5	3RD BURN W LOSS-SITE NOS

Last Updated: Version 3.2

Table 5.15 Transplant	
Code	Shortened Description
996.80	COMP ORGAN TRANSPLNT NOS
996.81	COMPL KIDNEY TRANSPLANT
996.82	COMPL LIVER TRANSPLANT
996.83	COMPL HEART TRANSPLANT
996.84	COMPL LUNG TRANSPLANT
996.85	COMPL MARROW TRANSPLANT
996.86	COMPL PANCREAS TRANSPLNT
996.87	COMP INTESTINE TRANSPLNT
996.89	COMP OTH ORGAN TRANSPLNT
V42.0	KIDNEY TRANSPLANT STATUS
V42.1	HEART TRANSPLANT STATUS
V42.2	HEART VALVE TRANSPLANT
V42.3	SKIN TRANSPLANT STATUS
V42.4	BONE TRANSPLANT STATUS
V42.5	CORNEA TRANSPLANT STATUS
V42.6	LUNG TRANSPLANT STATUS
V42.7	LIVER TRANSPLANT STATUS
V42.81	TRNSPL STATUS-BNE MARROW
V42.82	TRNSPL STS-PERIP STM CELL
V42.83	TRNSPL STATUS-PANCREAS
V42.84	TRNSPL STATUS-INTESTINES
V42.89	TRNSPL STATUS ORGAN NEC
V42.9	TRANSPLANT STATUS NOS

Last Updated: Version 3.2

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.21	TRANSAB PROCTOSIGMOIDOSC
48.22	PROCTOSIGMOIDOSC THRU ST
48.23	RIGID PROCTOSIGMOIDOSCPY

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
48.24	CLOSED RECTAL BIOPSY
48.25	OPEN RECTAL BIOPSY
48.26	PERIRECTAL TISSUE BIOPSY
48.29	RECT/PERIRECT DX OP NEC
48.31	RAD ELECTROCOAG-RECT LES
48.32	ELECTROCOAG RECT LES NEC
48.33	LASER DESTRUC RECTAL LES
48.34	CRYOSURG DESTR RECT LES
48.35	LOCAL EXCIS RECTAL LES
48.36	POLYPECTOMY OF RECTUM
48.41	SOAVE SUBMUC RECT RESECT
48.42	LAP PULL-THRU RES RECTUM
48.43	OPN PULL-THRU RES RECTUM
48.49	PULL-THRU RECT RESEC NEC
48.50	ABDPERNEAL RES RECTM NOS
48.51	LAP ABDPERNEAL RESC REC
48.52	OPN ABDPERNEAL RESC REC
48.59	ABDPERNEAL RESC RECT NEC
48.61	TRANS SAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC
48.71	SUTURE OF RECTAL LACER
48.72	CLOSURE OF PROCTOSTOMY
48.73	CLOSE RECTAL FIST NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
48.79	REPAIR OF RECTUM NEC
48.81	PERIRECTAL INCISION
48.82	PERIRECTAL EXCISION
48.91	INCIS RECTAL STRICTURE
48.92	ANORECTAL MYOMECTOMY
48.93	REPAIR PERIRECT FISTULA
48.99	RECTAL PERIRECT OP NEC
49.01	INCIS PERIANAL ABSCESS
49.02	PERIANAL INCISION NEC
49.03	EXCIS PERIANAL SKIN TAG
49.04	PERIANAL EXCISION NEC
49.11	ANAL FISTULOTOMY
49.12	ANAL FISTULECTOMY
49.39	OTHER DESTRUC ANUS LES

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
49.44	HEMORRHOID CRYOTHERAPY
49.45	HEMORRHOID LIGATION
49.46	HEMORRHOIDECTOMY
49.49	HEMORRHOID PROCEDURE NEC
49.51	LEFT LAT SPHINCTEROTOMY
49.52	POST SPHINCTEROTOMY
49.59	ANAL SPHINCTEROTOMY NEC
49.6	EXCISION OF ANUS
49.71	SUTURE ANAL LACERATION
49.72	ANAL CERCLAGE
49.73	CLOSURE OF ANAL FISTULA
49.74	GRACILIS MUSC TRANSPLAN
49.75	IMPL OR REV ART ANAL SPH
49.76	REMOV ART ANAL SPHINCTER
49.79	ANAL SPHINCT REPAIR NEC
49.91	INCISION OF ANAL SEPTUM
49.92	INSERT SUBQ ANAL STIMUL
49.93	ANAL INCISION NEC
49.94	REDUCTION ANAL PROLAPSE
49.95	CONTROL ANAL HEMORRHAGE
49.99	ANAL OPERATION NEC
55.01	NEPHROTOMY
55.02	NEPHROSTOMY
55.03	PERCU NEPHROSTM W/O FRAG
55.04	PERCU NEPHROSTMY W FRAG
55.11	PYELOTOMY
55.12	PYELOSTOMY
55.31	RENAL LES MARSUPIALIZAT
55.32	OPN ABLTN RENAL LES/TISS
55.33	PERC ABLTN RENL LES/TISS
55.34	LAP ABLTN RENAL LES/TISS
55.35	ABLTN RENAL LES/TISS NEC
55.39	LOC DESTR RENAL LES NEC
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
55.61	RENAL AUTOTRANSPLANT
55.69	KIDNEY TRANSPLANT NEC
55.7	NEPHROPEXY
55.81	SUTURE KIDNEY LACERATION
55.82	CLOSE NEPHROST & PYELOST
55.83	CLOSE RENAL FISTULA NEC

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
55.84	REDUCE RENAL PEDICL TORS
55.85	SYMPHYSIOTOMY
55.86	RENAL ANASTOMOSIS
55.87	CORRECT URETEROPELV JUNC
55.89	RENAL REPAIR NEC
55.91	RENAL DECAPSULATION
55.95	LOCAL RENAL PERFUSION
55.96	RENAL INJECTION NEC
55.97	IMPLANT MECHANIC KIDNEY
55.98	REMOV MECHANICAL KIDNEY
55.99	RENAL OPERATION NEC
56.0	TU REMOV URETER OBSTRUCT
56.1	URETERAL MEATOTOMY
56.34	OPEN URETERAL BIOPSY
56.40	URETERECTOMY NOS
56.41	PARTIAL URETERECTOMY
56.42	TOTAL URETERECTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
56.81	INTRALUM URETE ADHESIOLY
56.82	SUTURE URETERAL LACERAT
56.83	URETEROSTOMY CLOSURE
56.84	CLOSE URETER FISTULA NEC
56.85	URETEROPEXY
56.86	REMOVE URETERAL LIGATURE
56.89	REPAIR OF URETER NEC
56.91	URETERAL MEATUS DILATION
56.92	IMPLANT URETERAL STIMUL
56.93	REPLACE URETERAL STIMUL
56.94	REMOVE URETERAL STIMULAT
56.95	LIGATION OF URETER
56.99	URETERAL OPERATION NEC
57.0	TU BLADDER CLEARANCE
57.12	CYSTOTOMY & ADHESIOLYSIS
57.17	PERCUTANEOUS CYSTOSTOMY
57.18	OTHER SUPRAPU CYSTOSTOMY
57.19	CYSTOTOMY NEC
57.21	VESICOSTOMY
57.22	REVISE CLO VESICOSTOMY
57.34	OPEN BLADDER BIOPSY
57.39	BLADDER DIAGNOS PROC NEC
57.41	TU ADHESIOLYSIS BLADDER
57.49	TU DESTRUC BLADD LES NEC

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
57.59	BLADDER LES DESTRUCT NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
57.91	BLADDER SPHINCTEROTOMY
57.92	BLADDER NECK DILATION
57.93	CONTROL BLADD HEMORRHAGE
57.96	IMPLANT BLADDER STIMULAT
57.97	REPLACE BLADDER STIMULAT
57.98	REMOVE BLADDER STIMULAT
57.99	BLADDER OPERATION NEC
58.0	URETHROTOMY
58.1	URETHRAL MEATOTOMY
58.31	ENDOSC DESTR URETHRA LES
58.39	OTHER DESTRU URETHRA LES
58.41	SUTURE URETHRAL LACERAT
58.42	URETHROSTOMY CLOSURE
58.43	CLOSE URETH FISTULA NEC
58.44	URETHRAL REANASTOMOSIS
58.45	HYP0-EPI SPADIUS REPAIR
58.46	URETH RECONSTRUCTION NEC
58.47	URETHRAL MEATOPLASTY
58.49	URETHRAL REPAIR NEC
58.5	URETH STRICTURE RELEASE
58.91	PERIURETHRAL INCISION
58.92	PERIURETHRAL EXCISION
58.93	IMPLT ARTF URIN SPHINCT
58.99	URETH/PERIURETH OP NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIO LYS NEC
59.03	LAP LYS PERIREN/URET ADH
59.09	PERIREN/URETER INCIS NEC
59.11	OTH LYS PERIVES ADHESIO
59.12	LAP LYS PERIVESURETH ADH
59.19	PERIVESICAL INCISION NEC
59.3	URETHROVES JUNCT PLICAT

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
59.4	SUPRAPUBIC SLING OP
59.5	RETROPUBIC URETH SUSPENS
59.6	PARAURETHRAL SUSPENSION
59.71	LEVATOR MUSC SUSPENSION
59.79	URIN INCONTIN REPAIR NEC
59.91	PERIREN/VESICLE EXCISION
59.92	PERIREN/VESICLE OP NEC
60.0	INCISION OF PROSTATE
60.12	OPEN PROSTATIC BIOPSY
60.14	OPEN SEMINAL VESICLES BX
60.15	PERIPROSTATIC BIOPSY
60.18	PROSTATIC DX PROCED NEC
60.19	SEMIN VES DX PROCED NEC
60.21	TRANSURETH PROSTATECTOMY
60.29	OTH TRANSURETH PROSTATEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY
60.61	LOS EXCIS PROSTATIC LES
60.62	PERINEAL PROSTATECTOMY
60.69	PROSTATECTOMY NEC
60.71	PERCUT SEMIN VES ASPIRAT
60.72	SEMINAL VESICLE INCISION
60.73	SEMINAL VESICLE EXCISION
60.79	SEMINAL VESICLE OP NEC
60.81	PERIPROSTATIC INCISION
60.82	PERIPROSTATIC EXCISION
60.93	REPAIR OF PROSTATE
60.94	CONTROL PROSTATE HEMORR
60.95	TRANS BAL DIL PROS URETH
60.96	TU DESTR PROSTATE BY MT
60.97	OTH TU DESTR PROS - RT
60.99	PROSTATIC OPERATION NEC
61.0	SCROTUM & TUNICA I & D
61.2	EXCISION OF HYDROCELE
61.3	SCROTAL LES DESTRUCTION
61.41	SUTURE SCROTAL LACERAT
61.42	SCROTAL FISTULA REPAIR
61.49	SCROTUM/TUNIC REPAIR NEC
61.91	PERCUT TUNICA ASPIRATION
61.92	EXCISION TUNICA LES NEC
61.99	SCROTUM & TUNICA OP NEC
62.0	INCISION OF TESTES
62.12	OPEN TESTICULAR BIOPSY
62.19	TESTES DX PROCEDURE NEC

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
62.2	TESTICULAR LES DESTRUCT
62.3	UNILATERAL ORCHIECTOMY
62.41	REMOVE BOTH TESTES
62.42	REMOVE SOLITARY TESTIS
62.5	ORCHIOPEXY
62.61	SUTURE TESTICULAR LACER
62.69	TESTICULAR REPAIR NEC
62.7	INSERT TESTICULAR PROSTH
62.99	TESTICULAR OPERATION NEC
63.01	SPERMATIC CORD/VAS BIOPS
63.09	SPERMAT CORD/VAS DX NEC
63.1	EXC SPERMATIC VARICOCELE
63.2	EXCISE EPIDIDYMIS CYST
63.3	EXCISE CORD/EPID LES NEC
63.4	EPIDIDYMECTOMY
63.51	SUTURE CORD & EPID LACER
63.52	REDUCTION TORSION TESTES
63.53	TRANSPLANT SPERMAT CORD
63.59	CORD & EPIDID REPAIR NEC
63.6	VASOTOMY
63.70	MALE STERILIZATION NOS
63.71	LIGATION OF VAS DEFERENS
63.72	SPERMATIC CORD LIGATION
63.73	VASECTOMY
63.81	SUTURE VAS & EPIDID LAC
63.82	POSTOP VAS RECONSTRUCT
63.83	EPIDIDYMOVASOSTOMY
63.84	REMOVAL VAS LIGATURE
63.85	REMOV VAS DEFERENS VALVE
63.89	VAS & EPIDIDY REPAIR NEC
63.91	SPERMATOCELE ASPIRATION
63.92	EPIDIDYMYOTOMY
63.93	SPERMATIC CORD INCISION
63.94	SPERM CORD ADHESIOLYSIS
63.95	INSERT VALVE IN VAS DEF
63.99	CORD/EPID/VAS OPS NEC
64.0	CIRCUMCISION
64.11	PENILE BIOPSY
64.19	PENILE DIAGNOST PROC NEC
64.2	LOCAL EXCIS PENILE LES
64.3	AMPUTATION OF PENIS
64.41	SUTURE PENILE LACERATION
64.42	RELEASE OF CHORDEE
64.43	CONSTRUCTION OF PENIS
64.44	RECONSTRUCTION OF PENIS

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
64.45	REPLANTATION OF PENIS
64.49	PENILE REPAIR NEC
64.5	SEX TRANSFORMAT OP NEC
64.91	DORSAL/LAT SLIT PREPUCE
64.92	INCISION OF PENIS
64.93	DIVISION OF PENILE ADHES
64.94	FIT EXT PENILE PROSTHES
64.95	INS NONINFL PENIS PROSTH
64.96	REMOVE INT PENILE PROSTH
64.97	INS INFLATE PENIS PROSTH
64.98	PENILE OPERATION NEC
64.99	MALE GENITAL OP NEC
65.01	LAPAROSCOPIC OOPHOROTOMY
65.09	OTHER OOPHOROTOMY
65.11	OVARIAN ASPIRAT BIOPSY
65.12	OVARIAN BIOPSY NEC
65.13	LAP BIOPSY OF OVARY
65.14	OTH LAP DX PROC OVARIES
65.19	OVARIAN DX PROCEDURE NEC
65.21	OVARIAN CYST MARSUPIALIZ
65.22	OVARIAN WEDGE RESECTION
65.23	LAP MARSUP OVARIAN CYST
65.24	LAP WEDGE RESECT OVARY
65.25	OTH LAP LOC EXC DEST OVA
65.29	LOCAL DESTR OVA LES NEC
65.31	LAP UNILAT OOPHORECTOMY
65.39	OTH UNILAT OOPHORECTOMY
65.41	LAP UNI SALPINGO-OOPHOR
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.53	LAP REMOVE BOTH OVARIES
65.54	LAP REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
65.63	LAP REMOVE OVARIES/TUBES
65.64	LAP REMOVE REM OVA/TUBE
65.71	OTH SIMPLE SUTURE OVARY
65.72	OTH REIMPLANT OF OVARY
65.73	OTH SALPINGO-OOPHOROPLAS
65.74	LAP SIMPLE SUTURE OVARY
65.75	LAP REIMPLANT OF OVARY
65.76	LAP SALPINGO-OOPHOROPLAS
65.79	REPAIR OF OVARY NEC
65.81	LAP ADHESIOLYS OVA/TUBE

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
65.89	ADHESIOLYSIS OVARY/TUBE
65.91	ASPIRATION OF OVARY
65.92	TRANSPLANTATION OF OVARY
65.93	MANUAL RUPT OVARIAN CYST
65.94	OVARIAN DENERVATION
65.95	OVARIAN TORSION RELEASE
65.99	OVARIAN OPERATION NEC
66.01	SALPINGOTOMY
66.02	SALPINGOSTOMY
66.11	FALLOPIAN TUBE BIOPSY
66.19	FALLOP TUBE DX PROC NEC
66.21	BILAT ENDOSC CRUSH TUBE
66.22	BILAT ENDOSC DIVIS TUBE
66.29	BILAT ENDOS OCC TUBE NEC
66.31	BILAT TUBAL CRUSHING NEC
66.32	BILAT TUBAL DIVISION NEC
66.39	BILAT TUBAL DESTRUCT NEC
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
66.71	SIMPL SUTURE FALLOP TUBE
66.72	SALPINGO-OOPHOROSTOMY
66.73	SALPINGO-SALPINGOSTOMY
66.74	SALPINGO-UTEROSTOMY
66.79	FALLOP TUBE REPAIR NEC
66.8	FALLOPIAN TUBE INSUFFLAT
66.91	FALLOPIAN TUBE ASPIRAT
66.92	UNILAT FALLOP TUBE DESTR
66.93	IMPL FALLOP TUBE PROSTH
66.94	REMOV FALLOP TUBE PROSTH
66.95	BLOW THERAPEUT INTO TUBE
66.96	FALLOPIAN TUBE DILATION
66.97	BURY FIMBRIAE IN UTERUS
66.99	FALLOPIAN TUBE OP NEC
67.0	CERVICAL CANAL DILATION
67.11	ENDOCERVICAL BIOPSY
67.12	CERVICAL BIOPSY NEC
67.19	CERVICAL DX PROCEDUR NEC
67.2	CONIZATION OF CERVIX
67.31	CERVICAL CYST MARSUPIAL
67.32	CERVICAL LES CAUTERIZAT

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
67.33	CERVICAL LES CRYOTHERAPY
67.39	CERVICAL LES DESTRUC NEC
67.4	AMPUTATION OF CERVIX
67.51	TRANSAB CERCLAGE CERVIX
67.59	OTH REP INT CERVICAL OS
67.61	SUTURE CERVICAL LACERAT
67.62	CERVICAL FISTULA REPAIR
67.69	CERVICAL REPAIR NEC
68.0	HYSTEROTOMY
68.11	DIGITAL EXAM OF UTERUS
68.12	HYSTEROSCOPY
68.13	OPEN UTERINE BIOPSY
68.14	OPEN UTERINE LIGAMENT BX
68.15	CLOS UTERINE LIGAMENT BX
68.16	CLOSED UTERINE BIOPSY
68.19	UTERUS/ADNEX DX PROC NEC
68.21	ENDOMET SYNECHIAE DIVIS
68.22	INCISION UTERINE SEPTUM
68.23	ENDOMETRIAL ABLATION
68.29	UTERINE LES DESTRUCT NEC
68.31	LAP SCERVIC HYSTERECTOMY
68.39	SUBTOTL ABD HYST NEC/NOS
68.41	LAP TOTAL ABDOMINAL HYST
68.49	TOTAL ABD HYST NEC/NOS
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.61	LAP RADICAL ABDOMNL HYST
68.69	RADICAL ABD HYST NEC/NOS
68.71	LAP RADICAL VAGINAL HYST
68.79	RADICAL VAG HYST NEC/NOS
68.8	PELVIC EVISCERATION
68.9	HYSTERECTOMY NEC/NOS
69.01	D & C FOR PREG TERMINAT
69.02	D & C POST DELIVERY
69.09	D & C NEC
69.19	DESTRUC UTER SUPPORT NEC
69.21	INTERPOSIT OP UTERIN LIG
69.22	UTERINE SUSPENSION NEC
69.23	VAG REPAIR INVERS UTERUS
69.29	UTERUS/ADNEXA REPAIR NEC
69.3	PARACERV UTERINE DENERV
69.41	SUTURE UTERINE LACERAT
69.42	CLOSURE UTERINE FISTULA
69.49	UTERINE REPAIR NEC
69.51	ASPIRAT CURET-PREG TERMI

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
69.52	ASPIRAT CURET-POST DELIV
69.59	ASPIR CURETT UTERUS NEC
69.6	MENSTRUAL EXTRACTION
69.7	INSERTION OF IUD
69.91	INSERT UTERINE DEVICE
69.92	ARTIFICIAL INSEMINATION
69.93	INSERTION OF LAMINARIA
69.94	MAN REPLACE INVERT UTER
69.95	INCISION OF CERVIX
69.96	REMOVE CERVICAL CERCLAGE
69.97	REMOVE PENETRAT CERV FB
69.98	UTERINE SUPPORT OP NEC
69.99	UTERINE OPERATION NEC
70.0	CULDOCENTESIS
70.11	HYMENOTOMY
70.12	CULDOTOMY
70.13	INTRALUM VAG ADHESIOLYS
70.14	VAGINOTOMY NEC
70.21	VAGINOSCOPY
70.22	CULDOSCOPY
70.23	CUL-DE-SAC BIOPSY
70.24	VAGINAL BIOPSY
70.29	VAGIN/CUL-DE-SAC DX NEC
70.31	HYMENECTOMY
70.32	EXCIS CUL-DE-SAC LESION
70.33	EXCISION VAGINAL LESION
70.4	VAGINAL OBLITERATION
70.50	CYSTOCEL/RECTOCEL REPAIR
70.51	CYSTOCELE REPAIR
70.52	RECTOCELE REPAIR
70.53	CYSTO & RECTO W GRF/PROS
70.54	REP CYSTOCEL W GRFT/PROS
70.55	REP RECTOCELE W GRF/PROS
70.61	VAGINAL CONSTRUCTION
70.62	VAGINAL RECONSTRUCTION
70.63	VAGINAL CONST W GRF/PROS
70.64	VAG RECONST W GRFT/PROS
70.71	SUTURE VAGINA LACERATION
70.72	REPAIR COLOVAGIN FISTULA
70.73	REPAIR RECTOVAG FISTULA
70.74	REP VAGINOENT FISTUL NEC
70.75	REPAIR VAG FISTULA NEC
70.76	HYMENORRHAPHY
70.77	VAGINAL SUSPENS & FIXAT
70.78	VAG SUSP/FIX W GRFT/PROS

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
70.79	VAGINAL REPAIR NEC
70.8	VAGINAL VAULT OBLITERAT
70.91	VAGINAL OPERATION NEC
70.92	CUL-DE-SAC OPERATION NEC
70.93	CUL-DE-SAC GRF/PROS NEC
70.94	INSERT BIOLOGICAL GRAFT
70.95	INSERT SYNTH GRAFT/PROST
71.01	VULVAR ADHESIOLYSIS
71.09	INCIS VULVA/PERINEUM NEC
71.11	VULVAR BIOPSY
71.19	VULVAR DIAGNOS PROC NEC
71.21	PERCUTAN BARTHOLIN ASPIR
71.22	INCISE BARTHOLIN'S GLAND
71.23	BARTHOLIN GLAND MARSUP
71.24	DESTRUC BARTHOLIN GLAND
71.29	BARTHOLIN'S GLAND OP NEC
71.3	LOCAL VULVAR EXCIS NEC
71.4	OPERATIONS ON CLITORIS
71.5	RADICAL VULVECTOMY
71.61	UNILATERAL VULVECTOMY
71.62	BILATERAL VULVECTOMY
71.71	SUTURE VULVAR LACERATION
71.72	REPAIR VULVAR FISTULA
71.79	VULVAR/PERIN REPAIR NEC
71.8	OTHER VULVAR OPERATIONS
71.9	OTHER FEMALE GENITAL OPS

Last Updated: Version 3.2

Table 5.17 Intracranial Neurosurgery	
Code	Shortened Description
01.21	CRANIAL SINUS I & D
01.23	REOPEN CRANIOTOMY SITE
01.24	OTHER CRANIOTOMY
01.25	OTHER CRANIECTOMY
01.31	INCISE CEREBRAL MENINGES
01.32	LOBOTOMY & TRACTOTOMY
01.39	OTHER BRAIN INCISION
01.41	THALAMUS OPERATIONS
01.42	GLOBUS PALLIDUS OPS
01.51	EX CEREB MENINGEAL LES
01.52	HEMISPHERECTOMY
01.53	BRAIN LOBECTOMY
01.59	OTHER BRAIN EXCISION

Table 5.18 Reserved for Future Use

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Table 5.19 General Surgery	
Code	Shortened Description
17.31	LAP MUL SEG RES LG INTES
17.32	LAPAROSCOPIC CECECTOMY
17.33	LAP RIGHT HEMICOLECTOMY
17.34	LAP RES TRANSVERSE COLON
17.35	LAP LEFT HEMICOLECTOMY
17.36	LAP SIGMOIDECTOMY
17.39	LAP PT EX LRG INTEST NEC
32.39	OTH SEG LUNG RESECT NOS
32.49	LOBECTOMY OF LUNG NEC
32.59	OTHER PNEUMONECTOMY NOS
34.51	DECORTICATION OF LUNG
34.59	OTHER PLEURAL EXCISION
34.81	EXCISE DIAPHRAGM LESION
34.82	SUTURE DIAPHRAGM LACERAT
34.83	CLOSE DIAPHRAGM FISTULA
34.84	OTHER DIAPHRAGM REPAIR
34.89	DIAPHRAGM OPERATION NEC
41.5	TOTAL SPLENECTOMY
42.01	ESOPHAGEAL WEB INCISION
42.09	ESOPHAGEAL INCISION NEC
42.10	ESOPHAGOSTOMY NOS
42.11	CERVICAL ESOPHAGOSTOMY
42.12	ESOPH POUCH EXTERIORIZAT
42.19	EXT FISTULIZAT ESOPH NEC
42.40	ESOPHAGECTOMY NOS
42.41	PARTIAL ESOPHAGECTOMY
42.42	TOTAL ESOPHAGECTOMY
42.51	THORAC ESOPHAGUESOPHAGOS
42.52	THORAC ESOPHAGOGASTROST
42.53	THORAC SM BOWEL INTERPOS
42.54	THORAC ESOPHAGOENTER NEC
42.55	THORAC LG BOWEL INTERPOS
42.56	THORAC ESOPHAGOCOLOS NEC
42.58	THORAC INTERPOSITION NEC
42.59	THORAC ESOPHAG ANAST NEC
42.61	STERN ESOPHAGUESOPHAGOST
42.62	STERN ESOPHAGOGASTROSTOM
42.63	STERN SM BOWEL INTERPOS
42.64	STERN ESOPHAGOENTER NEC

Table 5.19 General Surgery	
Code	Shortened Description
42.65	STERN LG BOWEL INTERPOS
42.66	STERN ESOPHAGOCOLOS NEC
42.68	STERN INTERPOSITION NEC
42.69	STERN ESOPHAG ANAST NEC
42.82	SUTURE ESOPHAGEAL LACER
42.83	ESOPHAGOSTOMY CLOSURE
42.84	ESOPH FISTULA REPAIR NEC
42.85	ESOPHAG STRICTURE REPAIR
42.86	PROD SUBQ TUNNEL NO ANAS
42.87	ESOPHAGEAL GRAFT NEC
42.89	ESOPHAGEAL REPAIR NEC
43.5	PROXIMAL GASTRECTOMY
43.6	DISTAL GASTRECTOMY
43.7	PART GASTREC W JEJ ANAST
43.81	PART GAST W JEJ TRANSPOS
43.89	PARTIAL GASTRECTOMY NEC
43.91	TOT GAST W INTES INTERPO
43.99	TOTAL GASTRECTOMY NEC
44.00	VAGOTOMY NOS
44.01	TRUNCAL VAGOTOMY
44.02	HIGHLY SELECT VAGOTOMY
44.03	SELECTIVE VAGOTOMY NEC
44.21	DILATE PYLORUS, INCISION
44.29	OTHER PYLOROPLASTY
44.31	HIGH GASTRIC BYPASS
44.39	GASTROENTEROSTOMY NEC
44.40	SUTURE PEPTIC ULCER NOS
44.41	SUT GASTRIC ULCER SITE
44.42	SUTURE DUODEN ULCER SITE
44.5	REVISION GASTRIC ANASTOM
44.61	SUTURE GASTRIC LACERAT
44.63	CLOSE GASTRIC FISTUL NEC
44.64	GASTROPEXY
44.65	ESOPHAGOGASTROPLASTY
44.66	CREAT ESOPHAGASTR SPHINC
44.69	GASTRIC REPAIR NEC
44.91	LIGATE GASTRIC VARICES
44.92	INTRAOP GASTRIC MANIPUL
44.99	GASTRIC OPERATION NEC
45.00	INTESTINAL INCISION NOS
45.01	DUODENAL INCISION
45.02	SMALL BOWEL INCISION NEC
45.03	LARGE BOWEL INCISION
45.31	OTH EXCISE DUODENUM LES

Table 5.19 General Surgery	
Code	Shortened Description
45.32	DESTRUCT DUODEN LES NEC
45.33	LOCAL EXCIS SM BOWEL NEC
45.34	DESTR SM BOWEL LES NEC
45.41	EXCISE LG INTESTINE LES
45.49	DESTRUC LG BOWEL LES NEC
45.50	INTEST SEG ISOLAT NOS
45.51	SM BOWEL SEGMENT ISOLAT
45.52	LG BOWEL SEGMENT ISOLAT
45.61	MULT SEG SM BOWEL EXCIS
45.62	PART SM BOWEL RESECT NEC
45.63	TOTAL REMOVAL SM BOWEL
45.71	OPN MUL SEG LG INTES NEC
45.72	OPEN CECECTOMY NEC
45.73	OPN RT HEMICOLECTOMY NEC
45.74	OPN TRANSV COLON RES NEC
45.75	OPN LFT HEMICOLECTMY NEC
45.76	OPEN SIGMOIDECTOMY NEC
45.79	PRT LG INTES EXC NEC/NOS
45.82	OP TOT INTR-ABD COLECTMY
45.83	TOT ABD COLECTMY NEC/NOS
45.90	INTESTINAL ANASTOM NOS
45.91	SM-TO-SM BOWEL ANASTOM
45.92	SM BOWEL-RECT STUMP ANAS
45.93	SMALL-TO-LARGE BOWEL NEC
45.94	LG-TO-LG BOWEL ANASTOM
45.95	ANAL ANASTOMOSIS
46.01	SM BOWEL EXTERIORIZATION
46.02	RESECT EXT SEG SM BOWEL
46.03	LG BOWEL EXTERIORIZATION
46.04	RESECT EXT SEG LG BOWEL
46.11	TEMPORARY COLOSTOMY
46.13	PERMANENT COLOSTOMY
46.20	ILEOSTOMY NOS
46.21	TEMPORARY ILEOSTOMY
46.22	CONTINENT ILEOSTOMY
46.23	PERMANENT ILEOSTOMY NEC
46.42	PERICOLOST HERNIA REPAIR
46.43	LG BOWEL STOMA REVIS NEC
46.50	INTEST STOMA CLOSURE NOS
46.51	SM BOWEL STOMA CLOSURE
46.52	LG BOWEL STOMA CLOSURE
46.60	INTESTINAL FIXATION NOS
46.61	SM BOWEL-ABD WALL FIXAT
46.62	SMALL BOWEL FIXATION NEC

Table 5.19 General Surgery	
Code	Shortened Description
46.63	LG BOWEL-ABD WALL FIXAT
46.64	LARGE BOWEL FIXATION NEC
46.71	DUODENAL LACERAT SUTURE
46.72	DUODENAL FISTULA CLOSURE
46.76	CLOSE LG BOWEL FISTULA
46.79	REPAIR OF INTESTINE NEC
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.41	SOAVE SUBMUC RECT RESECT
48.49	PULL-THRU RECT RESEC NEC
48.50	ABDPERNEAL RES RECTM NOS
48.52	OPN ABDPERNEAL RESC REC
48.59	ABDPERNEAL RESC RECT NEC
48.61	TRANS SAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
50.0	HEPATOTOMY
50.21	MARSUPIALIZAT LIVER LES
50.22	PARTIAL HEPATECTOMY
50.29	DESTRUC HEPATIC LES NEC
50.3	HEPATIC LOBECTOMY
51.31	GB-TO-HEPAT DUCT ANAST
51.32	GB-TO-INTESTINE ANASTOM
51.33	GB-TO-PANCREAS ANASTOM
51.34	GB-TO-STOMACH ANASTOMOS
51.35	GALLBLADDER ANASTOM NEC
51.36	CHOLEDOCHOENTEROSTOMY
51.37	HEPATIC DUCT-GI ANASTOM
51.39	BILE DUCT ANASTOMOS NEC
51.41	CDE FOR CALCULUS REMOV
51.42	CDE FOR OBSTRUCTION NEC
51.49	INCIS OBSTR BILE DUC NEC
51.51	COMMON DUCT EXPLORATION
51.59	BILE DUCT INCISION NEC
51.61	EXCIS CYST DUCT REMNANT
51.62	EXCIS AMPULLA OF VATER
51.63	COMMON DUCT EXCIS NEC
51.69	BILE DUCT EXCISION NEC

Table 5.19 General Surgery	
Code	Shortened Description
51.71	SIMPLE SUT-COMMON DUCT
51.72	CHOLEDOCHOPLASTY
51.79	BILE DUCT REPAIR NEC
51.81	SPHINCTER OF ODDI DILAT
51.82	PANCREAT SPHINCTEROTOM
51.83	PANCREAT SPHINCTEROPLAS
51.89	SPHINCT OF ODDI OP NEC
51.91	REPAIR GB LACERATION
51.92	CLOSURE CHOLECYSTOSTOMY
51.93	CLOS BILIARY FISTUL NEC
51.94	REVIS BILE TRACT ANASTOM
51.95	REMOVE BILE DUCT PROSTH
51.99	BILIARY TRACT OP NEC
52.09	PANCREATOTOMY NEC
52.22	OTHER DESTRU PANCREA LES
52.3	PANCREAT CYST MARSUPIALI
52.4	INT DRAIN PANCREAT CYST
52.51	PROXIMAL PANCREATECTOMY
52.52	DISTAL PANCREATECTOMY
52.53	RAD SUBTOT PANCREATECTOM
52.59	PARTIAL PANCREATECT NEC
52.6	TOTAL PANCREATECTOMY
52.7	RAD PANCREATICODUODENECT
52.92	CANNULATION PANCREA DUC
52.95	PANCREATIC REPAIR NEC
52.96	PANCREATIC ANASTOMOSIS
52.99	PANCREATIC OPERATION NEC
53.72	OPN ABD DIAPHRM HERN NEC
53.75	ABD REP-DIAPHR HERN NOS
53.80	THOR REP-DIAPH HERN NOS
53.81	DIAPHRAGMATIC PLICATION
53.82	PARASTERN HERNIA REPAIR
53.84	OPN THORC DIAPH HERN NEC
54.11	EXPLORATORY LAPAROTOMY
54.12	REOPEN RECENT LAP SITE
54.19	LAPAROTOMY NEC
54.4	DESTRUCT PERITONEAL TISS
54.59	OTH PERITON ADHESIOLYSIS
54.61	RECLOSE POST OP DISRUPT
54.62	DELAYED CLOS ABD WOUND
54.63	ABD WALL SUTURE NEC
54.64	PERITONEAL SUTURE
54.71	REPAIR OF GASTROSCHISIS
54.72	ABDOMEN WALL REPAIR NEC

Table 5.19 General Surgery	
Code	Shortened Description
54.73	PERITONEAL REPAIR NEC
54.74	OMENTAL REPAIR NEC
54.75	MESENTERIC REPAIR NEC
54.92	REMOVE FB FROM PERITON
54.94	CREAT PERITONEOVAS SHUNT
54.95	PERITONEAL INCISION

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Table 5.20 Gynecological Surgery	
Code	Shortened Description
65.22	OVARIAN WEDGE RESECTION
65.29	LOCAL DESTR OVA LES NEC
65.39	OTH UNILAT OOPHORECTOMY
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
68.31	LAP SCERVIC HYSTERECTOMY
68.49	TOTAL ABD HYST NEC/NOS
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.69	RADICAL ABD HYST NEC/NOS
68.79	RADICAL VAG HYST NEC/NOS

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Table 5.21 Urological Surgery	
Code	Shortened Description
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
56.51	FORM CUTAN ILEOURETEROST
56.52	REVIS CUTAN ILEOURETEROS

Table 5.21 Urological Surgery	
Code	Shortened Description
56.71	URIN DIVERSION TO BOWEL
56.72	REVIS URETEROENTEROSTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.09	PERIREN/URETER INCIS NEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY

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Table 5.22 Elective Hip Replacement	
Code	Shortened Description
00.70	REV HIP REPL-ACETAB/FEM
00.71	REV HIP REPL-ACETAB COMP
00.72	REV HIP REPL-FEM COMP
00.73	REV HIP REPL-LINER/HEAD
00.77	HIP SURFACE, CERMC/POLY
00.85	RESRF HIP,TOTAL-ACET/FEM
00.86	RESRF HIP,PART-FEM HEAD
00.87	RESRF HIP,PART-ACETABLUM
81.51	TOTAL HIP REPLACEMENT
81.52	PARTIAL HIP REPLACEMENT
81.53	REVISE HIP REPLACEMENT NOS

Table 5.23 Elective Total Knee Replacement	
Code	Shortened Description
00.80	REV KNEE REPLACEMT-TOTAL
00.81	REV KNEE REPL-TIBIA COMP
00.82	REV KNEE REPL-FEMUR COMP
00.83	REV KNEE REPLACE-PATELLA
00.84	REV KNEE REPL-TIBIA LIN
81.54	TOTAL KNEE REPLACEMENT
81.55	REVISE KNEE REPLACE NOS

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Table 5.24 Hip Fracture Surgery	
Code	Shortened Description
81.40	REPAIR OF HIP, NEC

Last Updated: Version 3.2

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
00.70	REV HIP REPL-ACETAB/FEM
00.71	REV HIP REPL-ACETAB COMP
00.72	REV HIP REPL-FEM COMP
00.73	REV HIP REPL-LINER/HEAD
00.77	HIP SURFACE, CERMC/POLY
00.80	REV KNEE REPLACEMT-TOTAL
00.81	REV KNEE REPL-TIBIA COMP
00.82	REV KNEE REPL-FEMUR COMP
00.83	REV KNEE REPLACE-PATELLA
00.84	REV KNEE REPL-TIBIA LIN
00.85	RESRF HIP,TOTAL-ACET/FEM
00.86	RESRF HIP,PART-FEM HEAD
00.87	RESRF HIP,PART-ACETABLUM
01.21	CRANIAL SINUS I & D
01.23	REOPEN CRANIOTOMY SITE
01.24	OTHER CRANIOTOMY
01.25	OTHER CRANIECTOMY
01.31	INCISE CEREBRAL MENINGES
01.32	LOBOTOMY & TRACTOTOMY
01.39	OTHER BRAIN INCISION
01.41	THALAMUS OPERATIONS
01.42	GLOBUS PALLIDUS OPS
01.51	EX CEREB MENINGEAL LES
01.52	HEMISPHERECTOMY
01.53	BRAIN LOBECTOMY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
01.59	OTHER BRAIN EXCISION
32.39	OTH SEG LUNG RESECT NOS
32.49	LOBECTOMY OF LUNG NEC
32.59	OTHER PNEUMONECTOMY NOS
34.51	DECORTICATION OF LUNG
34.59	OTHER PLEURAL EXCISION
34.81	EXCISE DIAPHRAGM LESION
34.82	SUTURE DIAPHRAGM LACERAT
34.83	CLOSE DIAPHRAGM FISTULA
34.84	OTHER DIAPHRAGM REPAIR
34.89	DIAPHRAGM OPERATION NEC
35.71	ATRIA SEPTA DEF REP NEC
36.03	OPEN CORONRY ANGIOPLASTY
36.31	OPEN CHEST TRANS REVASC
36.91	CORON VESS ANEURYSM REP
36.99	HEART VESSEL OP NEC
37.10	INCISION OF HEART NOS
37.11	CARDIOTOMY
37.32	HEART ANEURYSM EXCISION
37.33	EXC/DEST HRT LESION OPEN
37.35	PARTIAL VENTRICULECTOMY
37.36	EXC LEFT ATRIAL APPENDAG
37.41	IMPL CARDIAC SUPPORT DEV
37.49	HEART/PERICARD REPR NEC
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.55	REM INT BIVENT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.64	REMVE EXT HRT ASSIST SYS
37.66	IMPLANTABLE HRT ASSIST
37.67	IMP CARDIOMYOSTIMUL SYS
41.5	TOTAL SPLENECTOMY
42.01	ESOPHAGEAL WEB INCISION
42.09	ESOPHAGEAL INCISION NEC
42.10	ESOPHAGOSTOMY NOS
42.11	CERVICAL ESOPHAGOSTOMY
42.12	ESOPH POUCH EXTERIORIZAT
42.19	EXT FISTULIZAT ESOPH NEC
42.40	ESOPHAGECTOMY NOS
42.41	PARTIAL ESOPHAGECTOMY
42.42	TOTAL ESOPHAGECTOMY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
42.51	THORAC ESOPHAGOESOPHAGOS
42.52	THORAC ESOPHAGOGASTROST
42.53	THORAC SM BOWEL INTERPOS
42.54	THORAC ESOPHAGOENTER NEC
42.55	THORAC LG BOWEL INTERPOS
42.56	THORAC ESOPHAGOCOLOS NEC
42.58	THORAC INTERPOSITION NEC
42.59	THORAC ESOPHAG ANAST NEC
42.61	STERN ESOPHAGOESOPHAGOST
42.62	STERN ESOPHAGOGASTROSTOM
42.63	STERN SM BOWEL INTERPOS
42.64	STERN ESOPHAGOENTER NEC
42.65	STERN LG BOWEL INTERPOS
42.66	STERN ESOPHAGOCOLOS NEC
42.68	STERN INTERPOSITION NEC
42.69	STERN ESOPHAG ANAST NEC
42.82	SUTURE ESOPHAGEAL LACER
42.83	ESOPHAGOSTOMY CLOSURE
42.84	ESOPH FISTULA REPAIR NEC
42.85	ESOPHAG STRICTURE REPAIR
42.86	PROD SUBQ TUNNEL NO ANAS
42.87	ESOPHAGEAL GRAFT NEC
42.89	ESOPHAGEAL REPAIR NEC
43.5	PROXIMAL GASTRECTOMY
43.6	DISTAL GASTRECTOMY
43.7	PART GASTREC W JEJ ANAST
43.81	PART GAST W JEJ TRANSPOS
43.89	PARTIAL GASTRECTOMY NEC
43.91	TOT GAST W INTES INTERPO
43.99	TOTAL GASTRECTOMY NEC
44.00	VAGOTOMY NOS
44.01	TRUNCAL VAGOTOMY
44.02	HIGHLY SELECT VAGOTOMY
44.03	SELECTIVE VAGOTOMY NEC
44.21	DILATE PYLORUS, INCISION
44.29	OTHER PYLOROPLASTY
44.31	HIGH GASTRIC BYPASS
44.39	GASTROENTEROSTOMY NEC
44.40	SUTURE PEPTIC ULCER NOS
44.41	SUT GASTRIC ULCER SITE
44.42	SUTURE DUODEN ULCER SITE
44.5	REVISION GASTRIC ANASTOM
44.61	SUTURE GASTRIC LACERAT
44.63	CLOSE GASTRIC FISTUL NEC
44.64	GASTROPEXY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
44.65	ESOPHAGOGASTROPLASTY
44.66	CREAT ESOPHAGASTR SPHINC
44.69	GASTRIC REPAIR NEC
44.91	LIGATE GASTRIC VARICES
44.92	INTRAOP GASTRIC MANIPUL
44.99	GASTRIC OPERATION NEC
45.01	DUODENAL INCISION
45.02	SMALL BOWEL INCISION NEC
45.31	OTH EXCISE DUODENUM LES
45.32	DESTRUCT DUODEN LES NEC
45.33	LOCAL EXCIS SM BOWEL NEC
45.34	DESTR SM BOWEL LES NEC
45.41	EXCISE LG INTESTINE LES
45.51	SM BOWEL SEGMENT ISOLAT
45.52	LG BOWEL SEGMENT ISOLAT
45.61	MULT SEG SM BOWEL EXCIS
45.62	PART SM BOWEL RESECT NEC
45.63	TOTAL REMOVAL SM BOWEL
45.82	OP TOT INTR-ABD COLECTMY
45.83	TOT ABD COLECTMY NEC/NOS
45.91	SM-TO-SM BOWEL ANASTOM
46.01	SM BOWEL EXTERIORIZATION
46.02	RESECT EXT SEG SM BOWEL
46.11	TEMPORARY COLOSTOMY
46.20	ILEOSTOMY NOS
46.21	TEMPORARY ILEOSTOMY
46.22	CONTINENT ILEOSTOMY
46.23	PERMANENT ILEOSTOMY NEC
46.42	PERICOLOST HERNIA REPAIR
46.43	LG BOWEL STOMA REVIS NEC
46.50	INTEST STOMA CLOSURE NOS
46.51	SM BOWEL STOMA CLOSURE
46.52	LG BOWEL STOMA CLOSURE
46.60	INTESTINAL FIXATION NOS
46.61	SM BOWEL-ABD WALL FIXAT
46.62	SMALL BOWEL FIXATION NEC
46.63	LG BOWEL-ABD WALL FIXAT
46.64	LARGE BOWEL FIXATION NEC
46.71	DUODENAL LACERAT SUTURE
46.72	DUODENAL FISTULA CLOSURE
46.79	REPAIR OF INTESTINE NEC
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.41	SOAVE SUBMUC RECT RESECT
48.49	PULL-THRU RECT RESEC NEC

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
48.52	OPN ABDPERNEAL RESC REC
48.59	ABDPERNEAL RESC RECT NEC
48.72	CLOSURE OF PROCTOSTOMY
48.73	CLOSE RECTAL FIST NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
50.0	HEPATOTOMY
50.21	MARSUPIALIZAT LIVER LES
50.22	PARTIAL HEPATECTOMY
50.29	DESTRUC HEPATIC LES NEC
50.3	HEPATIC LOBECTOMY
51.31	GB-TO-HEPAT DUCT ANAST
51.32	GB-TO-INTESTINE ANASTOM
51.33	GB-TO-PANCREAS ANASTOM
51.34	GB-TO-STOMACH ANASTOMOS
51.35	GALLBLADDER ANASTOM NEC
51.36	CHOLEDOCHOENTEROSTOMY
51.37	HEPATIC DUCT-GI ANASTOM
51.39	BILE DUCT ANASTOMOS NEC
51.41	CDE FOR CALCULUS REMOV
51.42	CDE FOR OBSTRUCTION NEC
51.49	INCIS OBSTR BILE DUC NEC
51.51	COMMON DUCT EXPLORATION
51.59	BILE DUCT INCISION NEC
51.61	EXCIS CYST DUCT REMNANT
51.62	EXCIS AMPULLA OF VATER
51.63	COMMON DUCT EXCIS NEC
51.69	BILE DUCT EXCISION NEC
51.71	SIMPLE SUT-COMMON DUCT
51.72	CHOLEDOCHOPLASTY
51.79	BILE DUCT REPAIR NEC
51.81	SPHINCTER OF ODDI DILAT
51.82	PANCREAT SPHINCTEROTOM
51.83	PANCREAT SPHINCTEROPLAS
51.89	SPHINCT OF ODDI OP NEC
51.91	REPAIR GB LACERATION
51.92	CLOSURE CHOLECYSTOSTOMY
51.93	CLOS BILIARY FISTUL NEC
51.94	REVIS BILE TRACT ANASTOM
51.95	REMOVE BILE DUCT PROSTH
51.99	BILIARY TRACT OP NEC
52.09	PANCREATOTOMY NEC
52.22	OTHER DESTRU PANCREA LES
52.3	PANCREAT CYST MARSUPIALI

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
52.4	INT DRAIN PANCREAT CYST
52.51	PROXIMAL PANCREATECTOMY
52.52	DISTAL PANCREATECTOMY
52.53	RAD SUBTOT PANCREATECTOM
52.59	PARTIAL PANCREATECT NEC
52.6	TOTAL PANCREATECTOMY
52.7	RAD PANCREATICODUODENECT
52.92	CANNULATION PANCREA DUC
52.95	PANCREATIC REPAIR NEC
52.96	PANCREATIC ANASTOMOSIS
52.99	PANCREATIC OPERATION NEC
53.72	OPN ABD DIAPHRM HERN NEC
53.75	ABD REP-DIAPHR HERN NOS
53.80	THOR REP-DIAPH HERN NOS
53.81	DIAPHRAGMATIC PLICATION
53.82	PARASTERN HERNIA REPAIR
53.84	OPN THORC DIAPH HERN NEC
54.11	EXPLORATORY LAPAROTOMY
54.12	REOPEN RECENT LAP SITE
54.19	LAPAROTOMY NEC
54.4	DESTRUCT PERITONEAL TISS
54.59	OTH PERITON ADHESIOLYSIS
54.61	RECLOSE POST OP DISRUPT
54.62	DELAYED CLOS ABD WOUND
54.63	ABD WALL SUTURE NEC
54.64	PERITONEAL SUTURE
54.71	REPAIR OF GASTROSCHISIS
54.72	ABDOMEN WALL REPAIR NEC
54.73	PERITONEAL REPAIR NEC
54.74	OMENTAL REPAIR NEC
54.75	MESENTERIC REPAIR NEC
54.92	REMOVE FB FROM PERITON
54.94	CREAT PERITONEOVAS SHUNT
54.95	PERITONEAL INCISION
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
56.51	FORM CUTAN ILEOURETEROST
56.52	REVIS CUTAN ILEOURETEROS
56.71	URIN DIVERSION TO BOWEL
56.72	REVIS URETEROENTEROSTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.09	PERIREN/URETER INCIS NEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY
65.22	OVARIAN WEDGE RESECTION
65.29	LOCAL DESTR OVA LES NEC
65.39	OTH UNILAT OOPHORECTOMY
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
81.40	REPAIR OF HIP, NEC
81.53	REVISE HIP REPLACEMT NOS
81.55	REVISE KNEE REPLACE NOS

Last Updated: Version 3.2

Table 6.1 Asthma	
Code	Shortened Description
493.00	EXTRINSIC ASTHMA NOS
493.01	EXT ASTHMA W STATUS ASTH

Table 6.1 Asthma	
Code	Shortened Description
493.02	EXT ASTHMA W(ACUTE) EXAC
493.10	INTRINSIC ASTHMA NOS
493.11	INT ASTHMA W STATUS ASTH
493.12	INT ASTHMA W (AC) EXAC
493.81	EXERCSE IND BRONCHOSPASM
493.82	COUGH VARIANT ASTHMA
493.90	ASTHMA NOS
493.91	ASTHMA W STATUS ASTHMAT
493.92	ASTHMA NOS W (AC) EXAC

Last Updated: Version 3.2

Table 7.01 Mental Disorders	
Code	Shortened Description
290.0	SENILE DEMENTIA UNCOMP
290.10	PRESENILE DEMENTIA
290.11	PRESENILE DELIRIUM
290.12	PRESENILE DELUSION
290.13	PRESENILE DEPRESSION
290.20	SENILE DELUSION
290.21	SENILE DEPRESSIVE
290.3	SENILE DELIRIUM
290.40	VASCULAR DEMENTIA,UNCOMP
290.41	VASC DEMENTIA W DELIRIUM
290.42	VASC DEMENTIA W DELUSION
290.43	VASC DEMENTIA W DEPRESSN
290.8	SENILE PSYCHOSIS NEC
290.9	SENILE PSYCHOT COND NOS
291.0	DELIRIUM TREMENS
291.1	ALCOHOL AMNESTIC DISORDR
291.2	ALCOHOL PERSIST DEMENTIA
291.3	ALCOH PSY DIS W HALLUCIN
291.4	PATHOLOGIC ALCOHOL INTOX
291.5	ALCOH PSYCH DIS W DELUS
291.81	ALCOHOL WITHDRAWAL
291.82	ALCOH INDUCE SLEEP DISOR
291.89	ALCOHOL MENTAL DISOR NEC
291.9	ALCOHOL MENTAL DISOR NOS
292.0	DRUG WITHDRAWAL
292.11	DRUG PSYCH DISOR W DELUS
292.12	DRUG PSY DIS W HALLUCIN
292.2	PATHOLOGIC DRUG INTOX
292.81	DRUG-INDUCED DELIRIUM
292.82	DRUG PERSISTING DEMENTIA

Table 7.01 Mental Disorders	
Code	Shortened Description
292.83	DRUG PERSIST AMNESTIC DIS
292.84	DRUG-INDUCED MOOD DISORD
292.85	DRUG INDUCED SLEEP DISOR
292.89	DRUG MENTAL DISORDER NEC
292.9	DRUG MENTAL DISORDER NOS
293.0	DELIRIUM D/T OTHER COND
293.1	SUBACUTE DELIRIUM
293.81	PSY DIS W DELUS OTH DIS
293.82	PSY DIS W HALLUC OTH DIS
293.83	MOOD DISORDER OTHER DIS
293.84	ANXIETY DISORDER OTH DIS
293.89	TRANSIENT MENTAL DIS NEC
293.9	TRANSIENT MENTAL DIS NOS
294.0	AMNESTIC DISORD OTH DIS
294.10	DEMENTIA W/O BEHAV DIST
294.11	DEMENTIA W BEHAVIOR DIST
294.8	MENTAL DISOR NEC OTH DIS
294.9	MENTAL DISOR NOS OTH DIS
295.00	SIMPL SCHIZOPHREN-UNSPEC
295.01	SIMPL SCHIZOPHREN-SUBCHR
295.02	SIMPLE SCHIZOPHREN-CHR
295.03	SIMP SCHIZ-SUBCHR/EXACER
295.04	SIMPL SCHIZO-CHR/EXACERB
295.05	SIMPL SCHIZOPHREN-REMISS
295.10	HEBEPHRENIA-UNSPEC
295.11	HEBEPHRENIA-SUBCHRONIC
295.12	HEBEPHRENIA-CHRONIC
295.13	HEBEPHREN-SUBCHR/EXACERB
295.14	HEBEPHRENIA-CHR/EXACERB
295.15	HEBEPHRENIA-REMISSION
295.20	CATATONIA-UNSPEC
295.21	CATATONIA-SUBCHRONIC
295.22	CATATONIA-CHRONIC
295.23	CATATONIA-SUBCHR/EXACERB
295.24	CATATONIA-CHR/EXACERB
295.25	CATATONIA-REMISSION
295.30	PARANOID SCHIZO-UNSPEC
295.31	PARANOID SCHIZO-SUBCHR
295.32	PARANOID SCHIZO-CHRONIC
295.33	PARAN SCHIZO-SUBCHR/EXAC
295.34	PARAN SCHIZO-CHR/EXACERB
295.35	PARANOID SCHIZO-REMISS
295.40	SCHIZOPHRENIFORM DIS NOS
295.41	SCHIZOPHRENIC DIS-SUBCHR

Table 7.01 Mental Disorders	
Code	Shortened Description
295.42	SCHIZOPHREN DIS-CHRONIC
295.43	SCHIZO DIS-SUBCHR/EXACER
295.44	SCHIZOPHR DIS-CHR/EXACER
295.45	SCHIZOPHRENIC DIS-REMISS
295.50	LATENT SCHIZOPHREN-UNSP
295.51	LAT SCHIZOPHREN-SUBCHR
295.52	LATENT SCHIZOPHREN-CHR
295.53	LAT SCHIZO-SUBCHR/EXACER
295.54	LATENT SCHIZO-CHR/EXACER
295.55	LAT SCHIZOPHREN-REMISS
295.60	SCHIZOPHR DIS RESID NOS
295.61	SCHIZOPH DIS RESID-SUBCH
295.62	SCHIZOPHR DIS RESID-CHR
295.63	SCHIZO RESID SUBCHR/EXAC
295.64	SCHIZOPH RESID-CHRO/EXAC
295.65	SCHIZOPH DIS RESID-REMIS
295.70	SCHIZOAFFECTIVE DIS NOS
295.71	SCHIZOAFFECTV DIS-SUBCHR
295.72	SCHIZOAFFECTIVE DIS-CHR
295.73	SCHIZOAFF DIS-SUBCH/EXAC
295.74	SCHIZOAFFTV DIS-CHR/EXAC
295.75	SCHIZOAFFECTVE DIS-REMIS
295.80	SCHIZOPHRENIA NEC-UNSPEC
295.81	SCHIZOPHRENIA NEC-SUBCHR
295.82	SCHIZOPHRENIA NEC-CHR
295.83	SCHIZO NEC-SUBCHR/EXACER
295.84	SCHIZO NEC-CHR/EXACERB
295.85	SCHIZOPHRENIA NEC-REMISS
295.90	SCHIZOPHRENIA NOS-UNSPEC
295.91	SCHIZOPHRENIA NOS-SUBCHR
295.92	SCHIZOPHRENIA NOS-CHR
295.93	SCHIZO NOS-SUBCHR/EXACER
295.94	SCHIZO NOS-CHR/EXACERB
295.95	SCHIZOPHRENIA NOS-REMISS
296.00	BIPOL I SINGLE MANIC NOS
296.01	BIPOL I SINGLE MANC-MILD
296.02	BIPOL I SINGLE MANIC-MOD
296.03	BIPOL I SING-SEV W/O PSY
296.04	BIPO I SIN MAN-SEV W PSY
296.05	BIPOL I SING MAN REM NOS
296.06	BIPOL I SINGLE MANIC REM
296.10	RECUR MANIC DIS-UNSPEC
296.11	RECUR MANIC DIS-MILD
296.12	RECUR MANIC DIS-MOD

Table 7.01 Mental Disorders	
Code	Shortened Description
296.13	RECUR MANIC DIS-SEVERE
296.14	RECUR MANIC-SEV W PSYCHO
296.15	RECUR MANIC-PART REMISS
296.16	RECUR MANIC-FULL REMISS
296.20	DEPRESS PSYCHOSIS-UNSPEC
296.21	DEPRESS PSYCHOSIS-MILD
296.22	DEPRESSIVE PSYCHOSIS-MOD
296.23	DEPRESS PSYCHOSIS-SEVERE
296.24	DEPR PSYCHOS-SEV W PSYCH
296.25	DEPR PSYCHOS-PART REMISS
296.26	DEPR PSYCHOS-FULL REMISS
296.30	RECURR DEPR PSYCHOS-UNSP
296.31	RECURR DEPR PSYCHOS-MILD
296.32	RECURR DEPR PSYCHOS-MOD
296.33	RECUR DEPR PSYCH-SEVERE
296.34	REC DEPR PSYCH-PSYCHOTIC
296.35	RECUR DEPR PSYC-PART REM
296.36	RECUR DEPR PSYC-FULL REM
296.40	BIPOL I CURRNT MANIC NOS
296.41	BIPOL I CURNT MANIC-MILD
296.42	BIPOL I CURRNT MANIC-MOD
296.43	BIPOL I MANC-SEV W/O PSY
296.44	BIPOL I MANIC-SEV W PSY
296.45	BIPOL I CUR MAN PART REM
296.46	BIPOL I CUR MAN FULL REM
296.50	BIPOL I CUR DEPRES NOS
296.51	BIPOL I CUR DEPRESS-MILD
296.52	BIPOL I CUR DEPRESS-MOD
296.53	BIPOL I CURR DEP W/O PSY
296.54	BIPOL I CURRNT DEP W PSY
296.55	BIPOL I CUR DEP REM NOS
296.56	BIPOL I CURRNT DEP REMIS
296.60	BIPOL I CURRNT MIXED NOS
296.61	BIPOL I CURRNT MIX-MILD
296.62	BIPOL I CURRNT MIXED-MOD
296.63	BIPOL I CUR MIX W/O PSY
296.64	BIPOL I CUR MIXED W PSY
296.65	BIPOL I CUR MIX-PART REM
296.66	BIPOL I CUR MIXED REMISS
296.7	BIPOLOR I CURRENT NOS
296.80	BIPOLAR DISORDER NOS
296.81	ATYPICAL MANIC DISORDER
296.82	ATYPICAL DEPRESSIVE DIS
296.89	BIPOLAR DISORDER NEC

Table 7.01 Mental Disorders	
Code	Shortened Description
296.90	EPISODIC MOOD DISORD NOS
296.99	EPISODIC MOOD DISORD NEC
297.0	PARANOID STATE, SIMPLE
297.1	DELUSIONAL DISORDER
297.2	PARAPHRENIA
297.3	SHARED PSYCHOTIC DISORD
297.8	PARANOID STATES NEC
297.9	PARANOID STATE NOS
298.0	REACT DEPRESS PSYCHOSIS
298.1	EXCITATIV TYPE PSYCHOSIS
298.2	REACTIVE CONFUSION
298.3	ACUTE PARANOID REACTION
298.4	PSYCHOGEN PARANOID PSYCH
298.8	REACT PSYCHOSIS NEC/NOS
298.9	PSYCHOSIS NOS
299.00	AUTISTIC DISORD-CURRENT
299.01	AUTISTIC DISORD-RESIDUAL
299.10	CHILDHD DISINTEGR-ACTIVE
299.11	CHILDHD DISINTEGR-RESID
299.80	PERVASV DEV DIS-CUR NEC
299.81	PERVASV DEV DIS-RES NEC
299.90	PERVASV DEV DIS-CUR NOS
299.91	PERVASV DEV DIS-RES NOS
300.00	ANXIETY STATE NOS
300.01	PANIC DIS W/O AGORPHOBIA
300.02	GENERALIZED ANXIETY DIS
300.09	ANXIETY STATE NEC
300.10	HYSTERIA NOS
300.11	CONVERSION DISORDER
300.12	DISSOCIATIVE AMNESIA
300.13	DISSOCIATIVE FUGUE
300.14	DISSOCIATVE IDENTITY DIS
300.15	DISSOCIATIVE REACT NOS
300.16	FACTITIOUS DIS W SYMPTOM
300.19	FACTITIOUS ILL NEC/NOS
300.20	PHOBIA NOS
300.21	AGORAPHOBIA W PANIC DIS
300.22	AGORAPHOBIA W/O PANIC
300.23	SOCIAL PHOBIA
300.29	ISOLATED/SPEC PHOBIA NEC
300.3	OBSESSIVE-COMPULSIVE DIS
300.4	DYSTHYMIC DISORDER
300.5	NEURASTHENIA
300.6	DEPERSONALIZATION DISORD

Table 7.01 Mental Disorders	
Code	Shortened Description
300.7	HYPOCHONDRIASIS
300.81	SOMATIZATION DISORDER
300.82	UNDIFF SOMATOFORM DISRDR
300.89	SOMATOFORM DISORDERS NEC
300.9	NONPSYCHOTIC DISORD NOS
301.0	PARANOID PERSONALITY
301.10	AFFECTIV PERSONALITY NOS
301.11	CHRONIC HYPOMANIC PERSON
301.12	CHR DEPRESSIVE PERSON
301.13	CYCLOTHYMIC DISORDER
301.20	SCHIZOID PERSONALITY NOS
301.21	INTROVERTED PERSONALITY
301.22	SCHIZOTYPAL PERSON DIS
301.3	EXPLOSIVE PERSONALITY
301.4	OBSESSIVE-COMPULSIVE DIS
301.50	HISTRIONIC PERSON NOS
301.51	CHR FACTITIOUS ILLNESS
301.59	HISTRIONIC PERSON NEC
301.6	DEPENDENT PERSONALITY
301.7	ANTISOCIAL PERSONALITY
301.81	NARCISSISTIC PERSONALITY
301.82	AVOIDANT PERSONALITY DIS
301.83	BORDERLINE PERSONALITY
301.84	PASSIVE-AGGRESSIV PERSON
301.89	PERSONALITY DISORDER NEC
301.9	PERSONALITY DISORDER NOS
302.0	EGO-DYSTONIC SEX ORIENT
302.1	ZOOPHILIA
302.2	PEDOPHILIA
302.3	TRANSVESTIC FETISHISM
302.4	EXHIBITIONISM
302.50	TRANS-SEXUALISM NOS
302.51	TRANS-SEXUALISM, ASEXUAL
302.52	TRANS-SEXUAL, HOMOSEXUAL
302.53	TRANS-SEX, HETEROSEXUAL
302.6	GENDR IDENTITY DIS-CHILD
302.70	PSYCHOSEXUAL DYSFUNC NOS
302.71	HYPOACTIVE SEX DESIRE
302.72	INHIBITED SEX EXCITEMENT
302.73	FEMALE ORGASMIC DISORDER
302.74	MALE ORGASMIC DISORDER
302.75	PREMATURE EJACULATION
302.76	DYSPAREUNIA, PSYCHOGENIC
302.79	PSYCHOSEXUAL DYSFUNC NEC

Table 7.01 Mental Disorders	
Code	Shortened Description
302.81	FETISHISM
302.82	VOYEURISM
302.83	SEXUAL MASOCHISM
302.84	SEXUAL SADISM
302.85	GEND IDEN DIS, ADOL/ADULT
302.89	PSYCHOSEXUAL DIS NEC
302.9	PSYCHOSEXUAL DIS NOS
306.0	PSYCHOGEN MUSCULSKEL DIS
306.1	PSYCHOGENIC RESPIR DIS
306.2	PSYCHOGEN CARDIOVASC DIS
306.3	PSYCHOGENIC SKIN DISEASE
306.4	PSYCHOGENIC GI DISEASE
306.50	PSYCHOGENIC GU DIS NOS
306.51	PSYCHOGENIC VAGINISMUS
306.52	PSYCHOGENIC DYSMENORRHEA
306.53	PSYCHOGENIC DYSURIA
306.59	PSYCHOGENIC GU DIS NEC
306.6	PSYCHOGEN ENDOCRINE DIS
306.7	PSYCHOGENIC SENSORY DIS
306.8	PSYCHOGENIC DISORDER NEC
306.9	PSYCHOGENIC DISORDER NOS
307.0	STUTTERING
307.1	ANOREXIA NERVOSA
307.20	TIC DISORDER NOS
307.21	TRANSIENT TIC DISORDER
307.22	CHR MOTOR/VOCAL TIC DIS
307.23	TOURETTE'S DISORDER
307.3	STEREOTYPIC MOVEMENT DIS
307.40	NONORGANIC SLEEP DIS NOS
307.41	TRANSIENT INSOMNIA
307.42	PERSISTENT INSOMNIA
307.43	TRANSIENT HYPERSOMNIA
307.44	PERSISTENT HYPERSOMNIA
307.45	NONORGANIC CIRCADIAN RHY
307.46	SLEEP AROUSAL DISORDER
307.47	SLEEP STAGE DYSFUNC NEC
307.48	REPETIT SLEEP INTRUSION
307.49	NONORGANIC SLEEP DIS NEC
307.50	EATING DISORDER NOS
307.51	BULIMIA NERVOSA
307.52	PICA
307.53	RUMINATION DISORDER
307.54	PSYCHOGENIC VOMITING
307.59	EATING DISORDER NEC

Table 7.01 Mental Disorders	
Code	Shortened Description
307.6	ENURESIS
307.7	ENCOPRESIS
307.80	PSYCHOGENIC PAIN NOS
307.81	TENSION HEADACHE
307.89	PSYCHOGENIC PAIN NEC
307.9	SPECIAL SYMPTOM NEC/NOS
308.0	STRESS REACT, EMOTIONAL
308.1	STRESS REACTION, FUGUE
308.2	STRESS REACT, PSYCHOMOT
308.3	ACUTE STRESS REACT NEC
308.4	STRESS REACT, MIXED DIS
308.9	ACUTE STRESS REACT NOS
309.0	ADJUSTMNT DIS W DEPRESSN
309.1	PROLONG DEPRESSIVE REACT
309.21	SEPARATION ANXIETY
309.22	EMANCIPATION DISORDER
309.23	ACADEMIC/WORK INHIBITION
309.24	ADJUSTMENT DIS W ANXIETY
309.28	ADJUST DIS W ANXIETY/DEP
309.29	ADJ REACT-EMOTION NEC
309.3	ADJUST DISOR/DIS CONDUCT
309.4	ADJ DIS-EMOTION/CONDUCT
309.81	POSTTRAUMATIC STRESS DIS
309.82	ADJUST REACT-PHYS SYMPT
309.83	ADJUST REACT-WITHDRAWAL
309.89	ADJUSTMENT REACTION NEC
309.9	ADJUSTMENT REACTION NOS
310.0	FRONTAL LOBE SYNDROME
310.1	PERSONALITY CHG OTH DIS
310.2	POSTCONCUSSION SYNDROME
310.8	NONPSYCHOT BRAIN SYN NEC
310.9	NONPSYCHOT BRAIN SYN NOS
311	DEPRESSIVE DISORDER NEC
312.00	UNSOCIAL AGGRESS-UNSPEC
312.01	UNSOCIAL AGGRESSION-MILD
312.02	UNSOCIAL AGGRESSION-MOD
312.03	UNSOCIAL AGGRESS-SEVERE
312.10	UNSOCIAL UNAGGRESS-UNSP
312.11	UNSOCIAL UNAGGRESS-MILD
312.12	UNSOCIAL UNAGGRESS-MOD
312.13	UNSOCIAL UNAGGR-SEVERE
312.20	SOCIAL CONDUCT DIS-UNSP
312.21	SOCIAL CONDUCT DIS-MILD
312.22	SOCIAL CONDUCT DIS-MOD

Table 7.01 Mental Disorders	
Code	Shortened Description
312.23	SOCIAL CONDUCT DIS-SEV
312.30	IMPULSE CONTROL DIS NOS
312.31	PATHOLOGICAL GAMBLING
312.32	KLEPTOMANIA
312.33	PYROMANIA
312.34	INTERMITT EXPLOSIVE DIS
312.35	ISOLATED EXPLOSIVE DIS
312.39	IMPULSE CONTROL DIS NEC
312.4	MIX DIS CONDUCT/EMOTION
312.81	CNDCT DSRDR CHLDHD ONST
312.82	CNDCT DSRDR ADLSCNT ONST
312.89	OTHER CONDUCT DISORDER
312.9	CONDUCT DISTURBANCE NOS
313.0	OVERANXIOUS DISORDER
313.1	MISERY & UNHAPPINESS DIS
313.21	SHYNESS DISORDER-CHILD
313.22	INTROVERTED DIS-CHILD
313.23	SELECTIVE MUTISM
313.3	RELATIONSHIP PROBLEMS
313.81	OPPOSITION DEFIANT DISOR
313.82	IDENTITY DISORDER
313.83	ACADEMIC UNDERACHIEVMENT
313.89	EMOTIONAL DIS CHILD NEC
313.9	EMOTIONAL DIS CHILD NOS
314.00	ATTN DEFIC NONHYPERACT
314.01	ATTN DEFICIT W HYPERACT
314.1	HYPERKINET W DEVEL DELAY
314.2	HYPERKINETIC CONDUCT DIS
314.8	OTHER HYPERKINETIC SYND
314.9	HYPERKINETIC SYND NOS
315.00	READING DISORDER NOS
315.01	ALEXIA
315.02	DEVELOPMENTAL DYSLEXIA
315.09	READING DISORDER NEC
315.1	MATHEMATICS DISORDER
315.2	OTH LEARNING DIFFICULTY
315.31	EXPRESSIVE LANGUAGE DIS
315.32	RECP-EXPRES LANGUAGE DIS
315.34	SPEECHDEL D/T HEAR LOSS
315.39	SPEECH/LANGUAGE DIS NEC
315.4	DEVEL COORDINATION DIS
315.5	MIXED DEVELOPMENT DIS
315.8	DEVELOPMENT DELAYS NEC
315.9	DEVELOPMENT DELAY NOS

Table 7.01 Mental Disorders	
Code	Shortened Description
316	PSYCHIC FACTOR W OTH DIS
317	MILD MENTAL RETARDATION
318.0	MOD MENTAL RETARDATION
318.1	SEVERE MENTAL RETARDAT
318.2	PROFOUND MENTAL RETARDAT
319	MENTAL RETARDATION NOS

Last Updated: Version 3.2

Table 7.02 Obstetrics	
Code	Shortened Description
638.0	ATTEM ABORT W PELVIC INF
638.1	ATTEM ABORT W HEMORRHAGE
638.2	ATTEM ABORT W PELV DAMAG
638.3	ATTEM ABORT W RENAL FAIL
638.4	ATTEM ABOR W METABOL DIS
638.5	ATTEM ABORTION W SHOCK
638.7	ATTEMP ABORT W COMPL NEC
638.8	ATTEMP ABORT W COMPL NOS
638.9	ATTEMPTED ABORT UNCOMPL
640.00	THREATENED ABORT-UNSPEC
640.01	THREATENED ABORT-DELIVER
640.80	HEM EARLY PREG NEC-UNSP
640.81	HEM EARLY PREG NEC-DELIV
640.90	HEMORR EARLY PREG-UNSPEC
640.91	HEM EARLY PREG-DELIVERED
641.00	PLACENTA PREVIA-UNSPEC
641.01	PLACENTA PREVIA-DELIVER
641.03	PLACENTA PREVIA-ANTEPART
641.10	PLACENTA PREV HEM-UNSPEC
641.11	PLACENTA PREV HEM-DELIV
641.13	PLACEN PREV HEM-ANTEPART
641.20	PREM SEPAR PLACEN-UNSPEC
641.21	PREM SEPAR PLACEN-DELIV
641.23	PREM SEPAR PLAC-ANTEPART
641.30	COAG DEF HEMORR-UNSPEC
641.31	COAG DEF HEMORR-DELIVER
641.33	COAG DEF HEMORR-ANTEPART
641.80	ANTEPART HEM NEC-UNSPEC
641.81	ANTEPARTUM HEM NEC-DELIV
641.83	ANTEPART HEM NEC-ANTEPAR
641.90	ANTEPART HEM NOS-UNSPEC
641.91	ANTEPARTUM HEM NOS-DELIV
641.93	ANTEPART HEM NOS-ANTEPAR

Table 7.02 Obstetrics	
Code	Shortened Description
642.00	ESSEN HYPERTEN PREG-UNSP
642.01	ESSEN HYPERTEN-DELIVERED
642.02	ESSEN HYPERTEN-DEL W P/P
642.03	ESSEN HYPERTEN-ANTEPART
642.04	ESSEN HYPERTEN-POSTPART
642.10	RENAL HYPERTEN PREG-UNSP
642.11	RENAL HYPERTEN PG-DELIV
642.12	RENAL HYPERTEN-DEL P/P
642.13	RENAL HYPERTEN-ANTEPART
642.14	RENAL HYPERTEN-POSTPART
642.20	OLD HYPERTEN PREG-UNSPEC
642.21	OLD HYPERTEN NEC-DELIVER
642.22	OLD HYPERTEN-DELIV W P/P
642.23	OLD HYPERTEN NEC-ANTEPAR
642.24	OLD HYPERTEN NEC-POSTPAR
642.30	TRANS HYPERTEN PREG-UNSP
642.31	TRANS HYPERTEN-DELIVERED
642.32	TRANS HYPERTEN-DEL W P/P
642.33	TRANS HYPERTEN-ANTEPART
642.34	TRANS HYPERTEN-POSTPART
642.40	MILD/NOS PREECLAMP-UNSP
642.41	MILD/NOS PREECLAMP-DELIV
642.42	MILD PREECLAMP-DEL W P/P
642.43	MILD/NOS PREECLAMP-ANTEP
642.44	MILD/NOS PREECLAMP-P/P
642.50	SEVERE PREECLAMP-UNSPEC
642.51	SEVERE PREECLAMP-DELIVER
642.52	SEV PREECLAMP-DEL W P/P
642.53	SEV PREECLAMP-ANTEPARTUM
642.54	SEV PREECLAMP-POSTPARTUM
642.60	ECLAMPSIA-UNSPECIFIED
642.61	ECLAMPSIA-DELIVERED
642.62	ECLAMPSIA-DELIV W P/P
642.63	ECLAMPSIA-ANTEPARTUM
642.64	ECLAMPSIA-POSTPARTUM
642.70	TOX W OLD HYPERTEN-UNSP
642.71	TOX W OLD HYPERTEN-DELIV
642.72	TOX W OLD HYP-DEL W P/P
642.73	TOX W OLD HYPER-ANTEPART
642.74	TOX W OLD HYPER-POSTPART
642.90	HYPERTEN PREG NOS-UNSPEC
642.91	TOX W OLD HYP-DEL W P/P
642.92	HYPERTENS NOS-DEL W P/P
642.93	HYPERTENS NOS-ANTEPARTUM

Table 7.02 Obstetrics	
Code	Shortened Description
642.94	HYPERTENS NOS-POSTPARTUM
643.00	MILD HYPEREM GRAV-UNSPEC
643.01	MILD HYPEREM GRAV-DELIV
643.03	MILD HYPEREMESIS-ANTEPAR
643.10	HYPEREM W METAB DIS-UNSP
643.11	HYPEREM W METAB DIS-DEL
643.13	HYPEREM W METAB-ANTEPART
643.20	LATE VOMIT OF PREG-UNSP
643.21	LATE VOMIT OF PREG-DELIV
643.23	LATE VOMIT PREG-ANTEPART
643.80	VOMIT COMPL PREG-UNSPEC
643.81	VOMIT COMPL PREG-DELIVER
643.83	VOMIT COMPL PREG-ANTEPAR
643.90	VOMIT OF PREG NOS-UNSPEC
643.91	VOMIT OF PREG NOS-DELIV
643.93	VOMIT OF PG NOS-ANTEPART
644.00	THREAT PREM LABOR-UNSP
644.03	THRT PREM LABOR-ANTEPART
644.10	THREAT LABOR NEC-UNSPEC
644.13	THREAT LABOR NEC-ANTEPAR
644.20	EARLY ONSET DELIV-UNSPEC
644.21	EARLY ONSET DELIVERY-DEL
645.10	POST TERM PREG-UNSP
645.11	POST TERM PREG-DEL
645.13	POST TERM PREG-ANTEPAR
645.20	PROLONGED PREG-UNSP
645.21	PROLONGED PREG-DEL
645.23	PROLONGED PREG-ANTEPAR
646.00	PAPYRACEOUS FETUS-UNSPEC
646.01	PAPYRACEOUS FETUS-DELIV
646.03	PAPYRACEOUS FET-ANTEPAR
646.10	EDEMA IN PREG-UNSPEC
646.11	EDEMA IN PREG-DELIVERED
646.12	EDEMA IN PREG-DEL W P/P
646.13	EDEMA IN PREG-ANTEPARTUM
646.14	EDEMA IN PREG-POSTPARTUM
646.20	RENAL DIS PREG NOS-UNSP
646.21	RENAL DIS NOS-DELIVERED
646.22	RENAL DIS NOS-DEL W P/P
646.23	RENAL DIS NOS-ANTEPARTUM
646.24	RENAL DIS NOS-POSTPARTUM
646.30	HABITUAL ABORTER-UNSPEC
646.31	HABITUAL ABORTER-DELIVER
646.33	HABITUAL ABORT-ANTEPART

Table 7.02 Obstetrics	
Code	Shortened Description
646.40	NEURITIS OF PREG-UNSPEC
646.41	NEURITIS-DELIVERED
646.42	NEURITIS-DELIVERED W P/P
646.43	NEURITIS OF PREG-ANTEPAR
646.44	NEURITIS OF PREG-POSTPAR
646.50	BACTERIURIA PREG-UNSPEC
646.51	ASYM BACTERIURIA-DELIVER
646.52	ASY BACTERURIA-DEL W P/P
646.53	ASY BACTERIURIA-ANTEPART
646.54	ASY BACTERIURIA-POSTPART
646.60	GU INFECT IN PREG-UNSPEC
646.61	GU INFECTION-DELIVERED
646.62	GU INFECTION-DELIV W P/P
646.63	GU INFECTION-ANTEPARTUM
646.64	GU INFECTION-POSTPARTUM
646.70	LIVER DIS IN PREG-UNSPEC
646.71	LIVER DISORDER-DELIVERED
646.73	LIVER DISORDER-ANTEPART
646.80	PREG COMPL NEC-UNSPEC
646.81	PREG COMPL NEC-DELIVERED
646.82	PREG COMPL NEC-DEL W P/P
646.83	PREG COMPL NEC-ANTEPART
646.84	PREG COMPL NEC-POSTPART
646.90	PREG COMPL NOS-UNSPEC
646.91	PREG COMPL NOS-DELIVERED
646.93	PREG COMPL NOS-ANTEPART
647.00	SYPHILIS IN PREG-UNSPEC
647.01	SYPHILIS-DELIVERED
647.02	SYPHILIS-DELIVERED W P/P
647.03	SYPHILIS-ANTEPARTUM
647.04	SYPHILIS-POSTPARTUM
647.10	GONORRHEA IN PREG-UNSPEC
647.11	GONORRHEA-DELIVERED
647.12	GONORRHEA-DELIVER W P/P
647.13	GONORRHEA-ANTEPARTUM
647.14	GONORRHEA-POSTPARTUM
647.20	OTHER VD IN PREG-UNSPEC
647.21	OTHER VD-DELIVERED
647.22	OTHER VD-DELIVERED W P/P
647.23	OTHER VD-ANTEPARTUM
647.24	OTHER VD-POSTPARTUM
647.30	TB IN PREG-UNSPECIFIED
647.31	TUBERCULOSIS-DELIVERED
647.32	TUBERCULOSIS-DELIV W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
647.33	TUBERCULOSIS-ANTEPARTUM
647.34	TUBERCULOSIS-POSTPARTUM
647.40	MALARIA IN PREG-UNSPEC
647.41	MALARIA-DELIVERED
647.42	MALARIA-DELIVERED W P/P
647.43	MALARIA-ANTEPARTUM
647.44	MALARIA-POSTPARTUM
647.50	RUBELLA IN PREG-UNSPEC
647.51	RUBELLA-DELIVERED
647.52	RUBELLA-DELIVERED W P/P
647.53	RUBELLA-ANTEPARTUM
647.54	RUBELLA-POSTPARTUM
647.60	OTH VIRUS IN PREG-UNSPEC
647.61	OTH VIRAL DIS-DELIVERED
647.62	OTH VIRAL DIS-DEL W P/P
647.63	OTH VIRAL DIS-ANTEPARTUM
647.64	OTH VIRAL DIS-POSTPARTU
647.80	INF DIS IN PREG NEC-UNSP
647.81	INFECT DIS NEC-DELIVERED
647.82	INFECT DIS NEC-DEL W P/P
647.83	INFECT DIS NEC-ANTEPART
647.84	INFECT DIS NEC-POSTPART
647.90	INFECT IN PREG NOS-UNSP
647.91	INFECT NOS-DELIVERED
647.92	INFECT NOS-DELIVER W P/P
647.93	INFECT NOS-ANTEPARTUM
647.94	INFECT NOS-POSTPARTUM
648.00	DIABETES IN PREG-UNSPEC
648.01	DIABETES-DELIVERED
648.02	DIABETES-DELIVERED W P/P
648.10	THYROID DYSFUN PREG-UNSP
648.11	THYROID DYSFUNC-DELIVER
648.12	THYROID DYSFUN-DEL W P/P
648.20	ANEMIA IN PREG-UNSPEC
648.21	ANEMIA-DELIVERED
648.22	ANEMIA-DELIVERED W P/P
648.30	DRUG DEPEND PREG-UNSPEC
648.31	DRUG DEPENDENCE-DELIVER
648.32	DRUG DEPENDEN-DEL W P/P
648.40	MENTAL DIS PREG-UNSPEC
648.41	MENTAL DISORDER-DELIVER
648.42	MENTAL DIS-DELIV W P/P
648.50	CONGEN CV DIS PREG-UNSP
648.51	CONGEN CV DIS-DELIVERED

Table 7.02 Obstetrics	
Code	Shortened Description
648.52	CONGEN CV DIS-DEL W P/P
648.60	CV DIS NEC PREG-UNSPEC
648.61	CV DIS NEC PREG-DELIVER
648.62	CV DIS NEC-DELIVER W P/P
648.70	BONE DISORD IN PREG-UNSP
648.71	BONE DISORDER-DELIVERED
648.72	BONE DISORDER-DEL W P/P
648.80	ABN GLUCOSE IN PREG-UNSP
648.81	ABN GLUCOSE TOLER-DELIV
648.82	ABN GLUCOSE-DELIV W P/P
648.90	OTH CURR COND PREG-UNSP
648.91	OTH CURR COND-DELIVERE
648.92	OTH CURR COND-DEL W P/P
649.00	TOBACCO USE DISORD-UNSPEC
649.01	TOBACCO USE DISOR-DELIV
649.02	TOBACCO USE DIS-DEL-P/P
649.10	OBESITY-UNSPECIFIED
649.11	OBESITY-DELIVERED
649.12	OBESITY-DELIVERED W P/P
649.20	BARIATRIC SURG STAT-UNSP
649.21	BARIATRIC SURG STAT-DEL
649.22	BARIATRIC SURG-DEL W P/P
649.30	COAGULATION DEF-UNSPEC
649.31	COAGULATION DEF-DELIV
649.32	COAGULATN DEF-DEL W P/P
649.40	EPILEPSY-UNSPECIFIED
649.41	EPILEPSY-DELIVERED
649.42	EPILEPSY-DELIVERED W P/P
649.50	SPOTTING-UNSPECIFIED
649.51	SPOTTING-DELIVERED
649.53	SPOTTING-ANTEPARTUM
649.60	UTERINE SIZE DESCRP-UNSP
649.61	UTERINE SIZE DESCREP-DEL
649.62	UTERINE SIZE-DEL W P/P
650	NORMAL DELIVERY
651.00	TWIN PREGNANCY-UNSPEC
651.01	TWIN PREGNANCY-DELIVERED
651.03	TWIN PREGNANCY-ANTEPART
651.10	TRIPLET PREGNANCY-UNSPEC
651.11	TRIPLET PREGNANCY-DELIV
651.13	TRIPLET PREG-ANTEPARTUM
651.20	QUADRUPLET PREG-UNSPEC
651.21	QUADRUPLET PREG-DELIVER
651.23	QUADRUPLET PREG-ANTEPART

Table 7.02 Obstetrics	
Code	Shortened Description
651.30	TWINS W FETAL LOSS-UNSP
651.31	TWINS W FETAL LOSS-DEL
651.33	TWINS W FETAL LOSS-ANTE
651.40	TRIPLETS W FET LOSS-UNSP
651.41	TRIPLETS W FET LOSS-DEL
651.43	TRIPLETS W FET LOSS-ANTE
651.50	QUADS W FETAL LOSS-UNSP
651.51	QUADS W FETAL LOSS-DEL
651.53	QUADS W FETAL LOSS-ANTE
651.60	MULT GES W FET LOSS-UNSP
651.61	MULT GES W FET LOSS-DEL
651.63	MULT GES W FET LOSS-ANTE
651.70	MUL GEST-FET REDUCT UNSP
651.71	MULT GEST-FET REDUCT DEL
651.73	MUL GEST-FET REDUCT ANTE
651.80	MULTI GESTAT NEC-UNSPEC
651.81	MULTI GESTAT NEC-DELIVER
651.83	MULTI GEST NEC-ANTEPART
651.90	MULTI GESTAT NOS-UNSPEC
651.91	MULT GESTATION NOS-DELIV
651.93	MULTI GEST NOS-ANTEPART
652.00	UNSTABLE LIE-UNSPECIFIED
652.01	UNSTABLE LIE-DELIVERED
652.03	UNSTABLE LIE-ANTEPARTUM
652.10	CEPHALIC VERS NOS-UNSPEC
652.11	CEPHALIC VERS NOS-DELIV
652.13	CEPHAL VERS NOS-ANTEPART
652.20	BREECH PRESENTAT-UNSPEC
652.21	BREECH PRESENTAT-DELIVER
652.23	BREECH PRESENT-ANTEPART
652.30	TRANSV/OBLIQ LIE-UNSPEC
652.31	TRANSVER/OBLIQ LIE-DELIV
652.33	TRANSV/OBLIQ LIE-ANTEPAR
652.40	FACE/BROW PRESENT-UNSPEC
652.41	FACE/BROW PRESENT-DELIV
652.43	FACE/BROW PRES-ANTEPART
652.50	HIGH HEAD AT TERM-UNSPEC
652.51	HIGH HEAD AT TERM-DELIV
652.53	HIGH HEAD TERM-ANTEPART
652.60	MULT GEST MALPRESEN-UNSP
652.61	MULT GEST MALPRES-DELIV
652.63	MULT GES MALPRES-ANTEPAR
652.70	PROLAPSED ARM-UNSPEC
652.71	PROLAPSED ARM-DELIVERED

Table 7.02 Obstetrics	
Code	Shortened Description
652.73	PROLAPSED ARM-ANTEPART
652.80	MALPOSITION NEC-UNSPEC
652.81	MALPOSITION NEC-DELIVER
652.83	MALPOSITION NEC-ANTEPART
652.90	MALPOSITION NOS-UNSPEC
652.91	MALPOSITION NOS-DELIVER
652.93	MALPOSITION NOS-ANTEPART
653.00	PELVIC DEFORM NOS-UNSPEC
653.01	PELVIC DEFORM NOS-DELIV
653.03	PELV DEFORM NOS-ANTEPART
653.10	CONTRACT PELV NOS-UNSPEC
653.11	CONTRACT PELV NOS-DELIV
653.13	CONTRAC PELV NOS-ANTEPAR
653.20	INLET CONTRACTION-UNSPEC
653.21	INLET CONTRACTION-DELIV
653.23	INLET CONTRACT-ANTEPART
653.30	OUTLET CONTRACTION-UNSP
653.31	OUTLET CONTRACTION-DELIV
653.33	OUTLET CONTRACT-ANTEPAR
653.40	FETOPELV DISPROP-UNSPEC
653.41	FETOPELV DISPROPOR-DELIV
653.43	FETOPELV DISPROP-ANTEPART
653.50	FETAL DISPROP NOS-UNSPEC
653.51	FETAL DISPROP NOS-DELIV
653.53	FETAL DISPRO NOS-ANTEPAR
653.60	HYDROCEPHAL FETUS-UNSPEC
653.61	HYDROCEPH FETUS-DELIVER
653.63	HYDROCEPH FETUS-ANTEPART
653.70	OTH ABN FET DISPROP-UNSP
653.71	OTH ABN FET DISPRO-DELIV
653.73	OTH ABN FET DISPRO-ANTEP
653.80	DISPROPORTION NEC-UNSPEC
653.81	DISPROPORTION NEC-DELIV
653.83	DISPROPOR NEC-ANTEPARTUM
653.90	DISPROPORTION NOS-UNSPEC
653.91	DISPROPORTION NOS-DELIV
653.93	DISPROPOR NOS-ANTEPARTUM
654.00	CONG ABN UTER PREG-UNSP
654.01	CONGEN ABN UTERUS-DELIV
654.02	CONG ABN UTER-DEL W P/P
654.03	CONGEN ABN UTER-ANTEPART
654.04	CONGEN ABN UTER-POSTPART
654.10	UTER TUMOR IN PREG-UNSP
654.11	UTERINE TUMOR-DELIVERED

Table 7.02 Obstetrics	
Code	Shortened Description
654.12	UTERINE TUMOR-DEL W P/P
654.13	UTERINE TUMOR-ANTEPARTUM
654.14	UTERINE TUMOR-POSTPARTUM
654.20	PREV C-DELIVERY UNSPEC
654.21	PREV C-DELIVERY-DELIVRD
654.23	PREV C-DELIVERY-ANTEPART
654.30	RETROVERT UTERUS-UNSPEC
654.31	RETROVERT UTERUS-DELIVER
654.32	RETROVERT UTER-DEL W P/P
654.33	RETROVERT UTER-ANTEPART
654.34	RETROVERT UTER-POSTPART
654.40	ABN GRAV UTERUS NEC-UNSP
654.41	ABN UTERUS NEC-DELIVERED
654.42	ABN UTERUS NEC-DEL W P/P
654.43	ABN UTERUS NEC-ANTEPART
654.44	ABN UTERUS NEC-POSTPART
654.50	CERV INCOMPET PREG-UNSP
654.51	CERVICAL INCOMPET-DELIV
654.52	CERV INCOMPET-DEL W P/P
654.53	CERV INCOMPET-ANTEPARTUM
654.54	CERV INCOMPET-POSTPARTUM
654.60	ABN CERVIX NEC PREG-UNSP
654.61	ABN CERVIX NEC-DELIVERED
654.62	ABN CERVIX NEC-DEL W P/P
654.63	ABN CERVIX NEC-ANTEPART
654.64	ABN CERVIX NEC-POSTPART
654.70	ABN VAGINA IN PREG-UNSP
654.71	ABNORM VAGINA-DELIVERED
654.72	ABNORM VAGINA-DEL W P/P
654.73	ABNORM VAGINA-ANTEPARTUM
654.74	ABNORM VAGINA-POSTPARTUM
654.80	ABN VULVA IN PREG-UNSPEC
654.81	ABNORMAL VULVA-DELIVERED
654.82	ABNORMAL VULVA-DEL W P/P
654.83	ABNORMAL VULVA-ANTEPART
654.84	ABNORMAL VULVA-POSTPART
654.90	ABN PEL NEC IN PREG-UNSP
654.91	ABN PELV ORG NEC-DELIVER
654.92	ABN PELV NEC-DELIV W P/P
654.93	ABN PELV ORG NEC-ANTEPAR
654.94	ABN PELV ORG NEC-POSTPAR
655.00	FETAL CNS MALFORM-UNSPEC
655.01	FETAL CNS MALFORM-DELIV
655.03	FETAL CNS MALFOR-ANTEPAR

Table 7.02 Obstetrics	
Code	Shortened Description
655.10	FETAL CHROMOS ABN-UNSPEC
655.11	FETAL CHROMOSO ABN-DELIV
655.13	FET CHROMO ABN-ANTEPART
655.20	FAMIL HEREDIT DIS-UNSPEC
655.21	FAMIL HEREDIT DIS-DELIV
655.23	FAMIL HEREDIT DIS-ANTEPART
655.30	FET DAMG D/T VIRUS-UNSP
655.31	FET DAMG D/T VIRUS-DELIV
655.33	FET DAMG D/T VIRUS-ANTEP
655.40	FET DAMG D/T DIS-UNSPEC
655.41	FET DAMG D/T DIS-DELIVER
655.43	FET DAMG D/T DIS-ANTEPAR
655.50	FETAL DAMG D/T DRUG-UNSP
655.51	FET DAMAG D/T DRUG-DELIV
655.53	FET DAMG D/T DRUG-ANTEPA
655.60	RADIAT FETAL DAMAG-UNSP
655.61	RADIAT FETAL DAMAG-DELIV
655.63	RADIAT FET DAMAG-ANTEPAR
655.70	DECREASE FETL MOVMT UNSP
655.71	DECREASE FETAL MOVMT DEL
655.73	DEC FETAL MOVMT ANTEPART
655.80	FETAL ABNORM NEC-UNSPEC
655.81	FETAL ABNORM NEC-DELIVER
655.83	FETAL ABNORM NEC-ANTEPAR
655.90	FETAL ABNORM NOS-UNSPEC
655.91	FETAL ABNORM NOS-DELIV
655.93	FETAL ABNORM NOS-ANTEPAR
656.00	FETAL-MATERNAL HEM-UNSPEC
656.01	FETAL-MATERNAL HEM-DELIV
656.03	FETAL-MATERNAL HEM-ANTEPAR
656.10	RH ISOIMMUNIZAT-UNSPEC
656.11	RH ISOIMMUNIZAT-DELIV
656.13	RH ISOIMMUNIZAT-ANTEPART
656.20	ABO ISOIMMUNIZATION-UNSPEC
656.21	ABO ISOIMMUNIZAT-DELIV
656.23	ABO ISOIMMUNIZAT-ANTEPAR
656.30	FETAL DISTRESS-UNSPEC
656.31	FETAL DISTRESS-DELIV
656.33	FETAL DISTRESS-ANTEPART
656.40	INTRAUTERINE DEATH-UNSPEC
656.41	INTRAUTER DEATH-DELIV
656.43	INTRAUTER DEATH-ANTEPART
656.50	POOR FETAL GROWTH-UNSPEC
656.51	POOR FETAL GROWTH-DELIV

Table 7.02 Obstetrics	
Code	Shortened Description
656.53	POOR FETAL GRTH-ANTEPART
656.60	EXCESS FETAL GRTH-UNSPEC
656.61	EXCESS FETAL GRTH-DELIV
656.63	EXCESS FET GRTH-ANTEPART
656.70	OTH PLACENT COND-UNSPEC
656.71	OTH PLACENT COND-DELIV
656.73	OTH PLACENT COND-ANTEPAR
656.80	FET/PLAC PROB NEC-UNSPEC
656.81	FET/PLAC PROB NEC-DELIV
656.83	FET/PLAC PROB NEC-ANTEPA
656.90	FET/PLAC PROB NOS-UNSPEC
656.91	FET/PLAC PROB NOS-DELIV
656.93	FET/PLAC PROB NOS-ANTEPA
657.00	POLYHYDRAMNIOS-UNSPEC
657.01	POLYHYDRAMNIOS-DELIV
657.03	POLYHYDRAMNIOS-ANTEPART
658.00	OLIGOHYDRAMNIOS-UNSPEC
658.01	OLIGOHYDRAMNIOS-DELIV
658.03	OLIGOHYDRAMNIOS-ANTEPAR
658.10	PREM RUPT MEMBRAN-UNSPEC
658.11	PREM RUPT MEMBRAN-DELIV
658.13	PREM RUPT MEMB-ANTEPART
658.20	PROLONG RUPT MEMB-UNSPEC
658.21	PROLONG RUPT MEMB-DELIV
658.23	PROLONG RUP MEMB-ANTEPAR
658.30	ARTIFIC RUPT MEMBR-UNSP
658.31	ARTIFIC RUPT MEMBR-DELIV
658.33	ARTIF RUPT MEMB-ANTEPART
658.40	AMNIOTIC INFECTION-UNSP
658.41	AMNIOTIC INFECTION-DELIV
658.43	AMNIOTIC INFECT-ANTEPART
658.80	AMNIOTIC PROB NEC-UNSPEC
658.81	AMNIOTIC PROB NEC-DELIV
658.83	AMNION PROB NEC-ANTEPART
658.90	AMNIOTIC PROB NOS-UNSPEC
658.91	AMNIOTIC PROB NOS-DELIV
658.93	AMNION PROB NOS-ANTEPART
659.00	FAIL MECHAN INDUCT-UNSP
659.01	FAIL MECH INDUCT-DELIVER
659.03	FAIL MECH INDUCT-ANTEPAR
659.10	FAIL INDUCTION NOS-UNSP
659.11	FAIL INDUCTION NOS-DELIV
659.13	FAIL INDUCT NOS-ANTEPART
659.20	PYREXIA IN LABOR-UNSPEC

Table 7.02 Obstetrics	
Code	Shortened Description
659.21	PYREXIA IN LABOR-DELIVER
659.23	PYREXIA IN LABOR-ANTEPAR
659.30	SEPTICEMIA IN LABOR-UNSP
659.31	SEPTICEM IN LABOR-DELIV
659.33	SEPTICEM IN LABOR-ANTEPA
659.40	GRAND MULTIPARITY-UNSPEC
659.41	GRAND MULTIPARITY-DELIV
659.43	GRAND MULTIPARITY-ANTEPA
659.50	ELDERLY PRIMIGRAVID-UNSP
659.51	ELDERLY PRIMIGRAVIDA-DEL
659.53	ELDER PRIMIGRAVID-ANTEPA
659.60	ELDERLY MULTIGRAVIDA-UNS
659.61	ELDERLY MULTIGRAVIDA-DEL
659.63	ELDERLY MULTIGRAVD-ANTEP
659.70	ABN FTL HRT RATE/RHY-UNS
659.71	ABN FTL HRT RATE/RHY-DEL
659.73	ABN FTL HRT RATE/RHY-ANT
659.80	COMPLIC LABOR NEC-UNSP
659.81	COMPLIC LABOR NEC-DELIV
659.83	COMPL LABOR NEC-ANTEPART
659.90	COMPLIC LABOR NOS-UNSPEC
659.91	COMPLIC LABOR NOS-DELIV
659.93	COMPL LABOR NOS-ANTEPART
660.00	OBSTRUCT/FET MALPOS-UNSPEC
660.01	OBSTRUC/FET MALPOS-DELIV
660.03	OBSTRUC/FET MALPOS-ANTEP
660.10	BONY PELV OBSTRUC-UNSPEC
660.11	BONY PELV OBSTRUCT-DELIV
660.13	BONY PELV OBSTRUC-ANTEPA
660.20	ABN PELV TISS OBSTR-UNSPEC
660.21	ABN PELV TIS OBSTR-DELIV
660.23	ABN PELV TIS OBSTR-ANTEP
660.30	PERSIST OCCIPTPOST-UNSPEC
660.31	PERSIST OCCIPTPOST-DELIV
660.33	PERSIST OCCIPTPOST-ANTEP
660.40	SHOULDER DYSTOCIA-UNSPEC
660.41	SHOULDER DYSTOCIA-DELIV
660.43	SHOULDER DYSTOCIA-ANTEPA
660.50	LOCKED TWINS-UNSPECIFIED
660.51	LOCKED TWINS-DELIVERED
660.53	LOCKED TWINS-ANTEPARTUM
660.60	FAIL TRIAL LAB NOS-UNSP
660.61	FAIL TRIAL LAB NOS-DELIV
660.63	FAIL TRIAL LAB NOS-ANTEP

Table 7.02 Obstetrics	
Code	Shortened Description
660.70	FAILED FORCEP NOS-UNSPEC
660.71	FAILED FORCEPS NOS-DELIV
660.73	FAIL FORCEPS NOS-ANTEPAR
660.80	OBSTRUC LABOR NEC-UNSPEC
660.81	OBSTRUCT LABOR NEC-DELIV
660.83	OBSTRUC LABOR NEC-ANTEPA
660.90	OBSTRUC LABOR NOS-UNSPEC
660.91	OBSTRUCT LABOR NOS-DELIV
660.93	OBSTRUC LABOR NOS-ANTEPA
661.00	PRIM UTERINE INERT-UNSP
661.01	PRIM UTERINE INERT-DELIV
661.03	PRIM UTER INERT-ANTEPART
661.10	SEC UTERINE INERT-UNSPEC
661.11	SEC UTERINE INERT-DELIV
661.13	SEC UTERINE INERT-ANTEPA
661.20	UTERINE INERTIA NEC-UNSP
661.21	UTERINE INERT NEC-DELIV
661.23	UTERINE INERT NEC-ANTEPA
661.30	PRECIPITATE LABOR-UNSPEC
661.31	PRECIPITATE LABOR-DELIV
661.33	PRECIPITATE LABOR-ANTEPA
661.40	UTER DYSTOCIA NOS-UNSPEC
661.41	UTER DYSTOCIA NOS-DELIV
661.43	UTER DYSTOCIA NOS-ANTEPA
661.90	ABNORMAL LABOR NOS-UNSP
661.91	ABNORMAL LABOR NOS-DELIV
661.93	ABNORM LABOR NOS-ANTEPAR
662.00	PROLONGED 1ST STAGE-UNSP
662.01	PROLONG 1ST STAGE-DELIV
662.03	PROLONG 1ST STAGE-ANTEPA
662.10	PROLONGED LABOR NOS-UNSP
662.11	PROLONG LABOR NOS-DELIV
662.13	PROLONG LABOR NOS-ANTEPA
662.20	PROLONGED 2ND STAGE-UNSP
662.21	PROLONG 2ND STAGE-DELIV
662.23	PROLONG 2ND STAGE-ANTEPA
662.30	DELAY DEL 2ND TWIN-UNSP
662.31	DELAY DEL 2ND TWIN-DELIV
662.33	DELAY DEL 2 TWIN-ANTEPAR
663.00	CORD PROLAPSE-UNSPEC
663.01	CORD PROLAPSE-DELIVERED
663.03	CORD PROLAPSE-ANTEPARTUM
663.10	CORD AROUND NECK-UNSP
663.11	CORD AROUND NECK-DELIVER

Table 7.02 Obstetrics	
Code	Shortened Description
663.13	CORD AROUND NECK-ANTEPAR
663.20	CORD COMPRESS NEC-UNSPEC
663.21	CORD COMPRESS NEC-DELIV
663.23	CORD COMPRES NEC-ANTEPAR
663.30	CORD ENTANGLE NEC-UNSPEC
663.31	CORD ENTANGLE NEC-DELIV
663.33	CORD ENTANGL NEC-ANTEPAR
663.40	SHORT CORD-UNSPECIFIED
663.41	SHORT CORD-DELIVERED
663.43	SHORT CORD-ANTEPARTUM
663.50	VASA PREVIA-UNSPECIFIED
663.51	VASA PREVIA-DELIVERED
663.53	VASA PREVIA-ANTEPARTUM
663.60	VASC LESION CORD-UNSPEC
663.61	VASC LESION CORD-DELIVER
663.63	VASC LESION CORD-ANTEPAR
663.80	CORD COMPLICAT NEC-UNSP
663.81	CORD COMPLICAT NEC-DELIV
663.83	CORD COMPL NEC-ANTEPART
663.90	CORD COMPLICAT NOS-UNSP
663.91	CORD COMPLICAT NOS-DELIV
663.93	CORD COMPL NOS-ANTEPART
664.00	DEL W 1 DEG LACERAT-UNSP
664.01	DEL W 1 DEG LACERAT-DEL
664.04	DEL W 1 DEG LAC-POSTPART
664.10	DEL W 2 DEG LACERAT-UNSP
664.11	DEL W 2 DEG LACERAT-DEL
664.14	DEL W 2 DEG LAC-POSTPART
664.20	DEL W 3 DEG LACERAT-UNSP
664.21	DEL W 3 DEG LACERAT-DEL
664.24	DEL W 3 DEG LAC-POSTPART
664.30	DEL W 4 DEG LACERAT-UNSP
664.31	DEL W 4 DEG LACERAT-DEL
664.34	DEL W 4 DEG LAC-POSTPART
664.40	OB PERINEAL LAC NOS-UNSP
664.41	OB PERINEAL LAC NOS-DEL
664.44	PERINEAL LAC NOS-POSTPAR
664.50	OB PERINEAL HEMATOM-UNSP
664.51	OB PERINEAL HEMATOMA-DEL
664.54	PERIN HEMATOMA-POSTPART
664.80	OB PERIN TRAUM NEC-UNSP
664.81	OB PERINEAL TRAU NEC-DEL
664.84	PERIN TRAUM NEC-POSTPART
664.90	OB PERIN TRAUM NOS-UNSP

Table 7.02 Obstetrics	
Code	Shortened Description
664.91	OB PERINEAL TRAU NOS-DEL
664.94	PERIN TRAUM NOS-POSTPART
665.00	PRELABOR RUPT UTER-UNSP
665.01	PRELABOR RUPT UTERUS-DEL
665.03	PRELAB RUPT UTER-ANTEPAR
665.10	RUPTURE UTERUS NOS-UNSP
665.11	RUPTURE UTERUS NOS-DELIV
665.20	INVERSION OF UTERUS-UNSP
665.22	INVERS UTERUS-DEL W P/P
665.24	INVERS UTERUS-POSTPART
665.30	LACERAT OF CERVIX-UNSPEC
665.31	LACERAT OF CERVIX-DELIV
665.34	LACER OF CERVIX-POSTPART
665.40	HIGH VAGINAL LACER-UNSP
665.41	HIGH VAGINAL LACER-DELIV
665.44	HIGH VAGINAL LAC-POSTPAR
665.50	OB INJ PELV ORG NEC-UNSP
665.51	OB INJ PELV ORG NEC-DEL
665.54	INJ PELV ORG NEC-POSTPAR
665.60	DAMAGE TO PELVIC JT-UNSP
665.61	DAMAGE TO PELVIC JT-DEL
665.64	DAMAGE PELVIC JT-POSTPAR
665.70	OB PELVIC HEMATOMA-UNSP
665.71	OB PELVIC HEMATOMA-DELIV
665.72	PELVIC HEMATOM-DEL W PP
665.74	PELVIC HEMATOMA-POSTPART
665.80	OB TRAUMA NEC-UNSPEC
665.81	OB TRAUMA NEC-DELIVERED
665.82	OB TRAUMA NEC-DEL W P/P
665.83	OB TRAUMA NEC-ANTEPARTUM
665.84	OB TRAUMA NEC-POSTPARTUM
665.90	OB TRAUMA NOS-UNSPEC
665.91	OB TRAUMA NOS-DELIVERED
665.92	OB TRAUMA NOS-DEL W P/P
665.93	OB TRAUMA NOS-ANTEPARTUM
665.94	OB TRAUMA NOS-POSTPARTUM
666.00	THIRD-STAGE HEM-UNSPEC
666.02	THRD-STAGE HEM-DEL W P/P
666.04	THIRD-STAGE HEM-POSTPART
666.10	POSTPARTUM HEM NEC-UNSP
666.12	POSTPA HEM NEC-DEL W P/P
666.14	POSTPART HEM NEC-POSTPAR
666.20	DELAY P/PART HEM-UNSPEC
666.22	DELAY P/P HEM-DEL W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
666.24	DELAY P/PART HEM-POSTPAR
666.30	POSTPART COAGUL DEF-UNSP
666.32	P/P COAG DEF-DEL W P/P
666.34	POSTPART COAG DEF-POSTPA
667.00	RETAIN PLACENTA NOS-UNSP
667.02	RETND PLAC NOS-DEL W P/P
667.04	RETAIN PLAC NOS-POSTPART
667.10	RETAIN PROD CONCEPT-UNSP
667.12	RET PROD CONC-DEL W P/P
667.14	RET PROD CONCEPT-POSTPAR
668.00	PULM COMPL IN DEL-UNSPEC
668.01	PULM COMPL IN DEL-DELIV
668.02	PULM COMPLIC-DEL W P/P
668.10	HEART COMPL IN DEL-UNSP
668.11	HEART COMPL IN DEL-DELIV
668.12	HEART COMPL-DEL W P/P
668.20	CNS COMPL LABOR/DEL-UNSP
668.21	CNS COMPL LAB/DEL-DELIV
668.22	CNS COMPLIC-DEL W P/P
668.80	ANESTH COMP DEL NEC-UNSP
668.81	ANESTH COMPL NEC-DELIVER
668.82	ANESTH COMPL NEC-DEL P/P
668.83	ANESTH COMPL ANTEPARTUM
668.84	ANESTH COMPL-POSTPARTUM
668.90	ANESTH COMP DEL NOS-UNSP
668.91	ANESTH COMPL NOS-DELIVER
668.92	ANESTH COMPL NOS-DEL P/P
668.93	ANESTH COMPL-ANTEPARTUM
668.94	ANESTH COMPL-POSTPARTUM
669.00	MATERNAL DISTRESS-UNSPEC
669.01	MATERNAL DISTRESS-DELIV
669.02	MATERN DISTRES-DEL W P/P
669.03	MATERN DISTRESS-ANTEPAR
669.04	MATERN DISTRESS-POSTPART
669.10	OBSTETRIC SHOCK-UNSPEC
669.11	OBSTETRIC SHOCK-DELIVER
669.12	OBSTET SHOCK-DELIV W P/P
669.20	MATERN HYPOTENS SYN-UNSP
669.21	MATERN HYPOTEN SYN-DELIV
669.22	MATERN HYPOTEN-DEL W P/P
669.23	MATERN HYPOTENS-ANTEPAR
669.24	MATERN HYPOTENS-POSTPART
669.30	AC KIDNEY FAIL W DEL-UNSP
669.32	AC KIDNEY FAIL-DEL W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
669.40	OTH OB SURG COMPL-UNSPEC
669.41	OTH OB COMPL-DELIVERED
669.42	OTH OB COMPL-DELIV W P/P
669.43	COMPLC OB SURG ANTEPRTM
669.44	OTH OB SURG COMPL-POSTPA
669.50	FORCEP DELIV NOS-UNSPEC
669.51	FORCEP DELIV NOS-DELIVER
669.60	BREECH EXTR NOS-UNSPEC
669.61	BREECH EXTR NOS-DELIVER
669.70	CESAREAN DELIV NOS-UNSP
669.71	CESAREAN DELIVERY NOS
669.80	COMPL LAB/DELIV NEC-UNSP
669.81	COMP LAB/DELIV NEC-DELIV
669.82	COMPL DEL NEC-DEL W P/P
669.83	COMPL DELIV NEC-ANTEPAR
669.84	COMPL DELIV NEC-POSTPART
669.90	COMPL LAB/DELIV NOS-UNSP
669.91	COMP LAB/DELIV NOS-DELIV
669.92	COMPL DEL NOS-DEL W P/P
669.93	COMPL DELIV NOS-ANTEPAR
669.94	COMPL DELIV NOS-POSTPART
670.00	MAJ PUERP INF NOS-UNSP
670.02	MAJ PUER INF NOS-DEL P/P
670.04	MAJOR PUERP INF NOS-P/P
671.00	VARIC VEIN LEG PREG-UNSP
671.01	VARICOSE VEIN LEG-DELIV
671.02	VARIC VEIN LEG-DEL W P/P
671.10	VARIC VULVA PREG-UNSPEC
671.11	VARICOSE VULVA-DELIVERED
671.12	VARICOSE VULVA-DEL W P/P
671.20	THROMBOPHLEB PREG-UNSPEC
671.21	THROMBOPHLEBITIS-DELIVER
671.22	THROMBOPHLEB-DELIV W P/P
671.80	VENOUS COMPL NEC-UNSPEC
671.81	VENOUS COMPL NEC-DELIVER
671.82	VEN COMP NEC-DELIV W P/P
672.00	PUERPERAL PYREXIA-UNSPEC
672.02	PUERP PYREXIA-DEL W P/P
673.00	OB AIR EMBOLISM-UNSPEC
673.01	OB AIR EMBOLISM-DELIVER
673.02	OB AIR EMBOL-DELIV W P/P
673.10	AMNIOTIC EMBOLISM-UNSPEC
673.11	AMNIOTIC EMBOLISM-DELIV
673.12	AMNIOT EMBOL-DELIV W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
673.30	OB PYEMIC EMBOL-UNSPEC
673.31	OB PYEMIC EMBOL-DELIVER
673.32	OB PYEM EMBOL-DEL W P/P
673.33	OB PYEMIC EMBOL-ANTEPART
673.34	OB PYEMIC EMBOL-POSTPART
673.80	PULMON EMBOL NEC-UNSP
673.81	PULMON EMBOL NEC-DELIVER
673.82	PULM EMBOL NEC-DEL W P/P
674.00	PUERP CEREBVASC DIS-UNSP
674.01	PUERP CEREBVAS DIS-DELIV
674.02	CEREBVAS DIS-DELIV W P/P
674.10	DISRUPT C-SECT WND-UNSP
674.12	DISRUPT C-SECT-DEL W P/P
674.20	DISRUPT PERINEUM-UNSPEC
674.22	DISRUPT PERIN-DEL W P/P
674.30	OB SURG COMPL NEC-UNSPEC
674.32	OB SURG COMPL-DEL W P/P
674.40	PLACENTAL POLYP-UNSPEC
674.42	PLACENT POLYP-DEL W P/P
674.50	PERIPART CARDIOMY-UNSPEC
674.51	PERIPARTUM CARDIOMY-DEL
674.52	PERIPART CARD DEL W P/P
674.80	PUERP COMPL NEC-UNSPEC
674.82	PUERP COMP NEC-DEL W P/P
674.90	PUERP COMPL NOS-UNSPEC
674.92	PUERP COMP NOS-DEL W P/P
675.00	INFECT NIPPLE PREG-UNSP
675.01	INFECT NIPPLE-DELIVERED
675.02	INFECT NIPPLE-DEL W P/P
675.10	BREAST ABSCESS PREG-UNSPEC
675.11	BREAST ABSCESS-DELIVERED
675.12	BREAST ABSCESS-DEL W P/P
675.20	MASTITIS IN PREG-UNSPEC
675.21	MASTITIS-DELIVERED
675.22	MASTITIS-DELIV W P/P
675.80	BREAST INF PREG NEC-UNSPEC
675.81	BREAST INFECT NEC-DELIV
675.82	BREAST INF NEC-DEL W P/P
675.90	BREAST INF PREG NOS-UNSP
675.91	BREAST INFECT NOS-DELIV
675.92	BREAST INF NOS-DEL W P/P
676.00	RETRACT NIPPLE PREG-UNSP
676.01	RETRACTED NIPPLE-DELIV
676.02	RETRACT NIPPLE-DEL W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
676.03	RETRACT NIPPLE-ANTEPART
676.04	RETRACT NIPPLE-POSTPART
676.10	CRACKED NIPPLE PREG-UNSP
676.11	CRACKED NIPPLE-DELIV
676.12	CRACKED NIPPLE-DEL W P/P
676.13	CRACKED NIPPLE-ANTEPART
676.14	CRACKED NIPPLE-POSTPART
676.20	BREAST ENGORGE-UNSPEC
676.21	BREAST ENGORGE-DELIV
676.22	BREAST ENGORGE-DEL W P/P
676.23	BREAST ENGORGE-ANTEPART
676.24	BREAST ENGORGE-POSTPART
676.30	BREAST DIS PREG NEC-UNSP
676.31	BREAST DIS NEC-DELIV
676.32	BREAST DIS NEC-DEL W P/P
676.33	BREAST DIS NEC-ANTEPART
676.34	BREAST DIS NEC-POSTPART
676.40	LACTATION FAIL-UNSPEC
676.41	LACTATION FAIL-DELIVERED
676.42	LACTATION FAIL-DEL W P/P
676.43	LACTATION FAILURE-ANTEPART
676.44	LACTATION FAILURE-POSTPART
676.50	SUPPR LACTATION-UNSPEC
676.51	SUPPR LACTATION-DELIVER
676.52	SUPPR LACTAT-DEL W P/P
676.53	SUPPR LACTATION-ANTEPAR
676.54	SUPPR LACTATION-POSTPART
676.60	GALACTORRHEA PREG-UNSPEC
676.61	GALACTORRHEA-DELIVERED
676.62	GALACTORRHEA-DEL W P/P
676.63	GALACTORRHEA-ANTEPARTUM
676.64	GALACTORRHEA-POSTPARTUM
676.80	LACTATION DIS NEC-UNSPEC
676.81	LACTATION DIS NEC-DELIV
676.82	LACTAT DIS NEC-DEL W P/P
676.83	LACTAT DIS NEC-ANTEPART
676.84	LACTAT DIS NEC-POSTPART
676.90	LACTATION DIS NOS-UNSPEC
676.91	LACTATION DIS NOS-DELIV
676.92	LACTAT DIS NOS-DEL W P/P
676.93	LACTAT DIS NOS-ANTEPART
676.94	LACTAT DIS NOS-POSTPART
677	LATE EFFECT CMPLCATN PREG

Code	Shortened Description
415.11	IATROGEN PULM EMB/INFARC
415.19	PULM EMBOL/INFARCT NEC
451.11	FEMORAL VEIN PHLEBITIS
451.19	DEEP PHLEBITIS-LEG NEC
451.2	THROMBOPHLEBITIS LEG NOS
451.81	ILIAC THROMBOPHLEBITIS
451.9	THROMBOPHLEBITIS NOS
453.40	DVT/EMBLSM LOWER EXT NOS
453.41	DVT/EMB PROX LOWER EXT
453.87	AC EMBL THORAC VEIN NEC
453.89	AC EMBOLISM VEINS NEC
453.9	VENOUS THROMBOSIS NOS

Last Updated: Version 3.2

Code	Shortened Description
634.60	SPON ABORT W EMBOL-UNSPEC
634.61	SPON ABORT W EMBOL-INC
634.62	SPON ABORT W EMBOL-COMP
635.60	LEGAL ABORT W EMBOL-UNSPEC
635.61	LEGAL ABORT W EMBOL-INC
635.62	LEGAL ABORT W EMBOL-COMP
636.60	ILLEG AB W EMBOLISM-UNSPEC
636.61	ILLEG AB W EMBOLISM-INC
636.62	ILLEG AB W EMBOLISM-COMP
637.60	AB NOS W EMBOLISM-UNSP
637.61	AB NOS W EMBOLISM-INC
637.62	AB NOS W EMBOLISM-COMP
638.6	ATTEMP ABORT W EMBOLISM
639.6	POSTABORTION EMBOLISM
671.30	DEEP THROMB ANTEPAR-UNSPEC
671.31	DEEP THROM ANTEPAR-DELIV
671.33	DEEP VEIN THROMB-ANTEPAR
671.40	DEEP THROMB POSTPAR-UNSPEC
671.42	THROMB POSTPAR-DEL W P/P
671.44	DEEP VEIN THROMB-POSTPAR
671.50	THROMBOSIS NEC PREG-UNSPEC
671.51	THROMBOSIS NEC-DELIV
671.52	THROMB NEC-DELIV W P/P
671.53	THROMBOSIS NEC-ANTEPART
671.54	THROMBOSIS NEC-POSTPART

Table 7.04 Obstetrics – VTE	
Code	Shortened Description
671.90	VEN COMPL PREG NOS-UNSPEC
671.91	VENOUS COMPL NOS-DELIVER
671.92	VEN COMP NOS-DELIV W P/P
671.93	VENOUS COMPL NOS-ANTEPAR
671.94	VENOUS COMPL NOS-POSTPAR
673.20	OB PULM EMBOL NOS-UNSPEC
673.21	PULM EMBOL NOS-DELIV
673.22	PULM EMBOL NOS-DELIV W P/P
673.23	PULM EMBOL NOS-ANTEPART
673.24	PULM EMBOL NOS-POSTPART

Last Updated: Version 3.2

Table 8.1 Ischemic Stroke (STK)	
Code	Shortened Description
433.01	OCL BSLR ART W INFRCT
433.10	OCL CRTD ART WO INFRCT
433.11	OCL CRTD ART W INFRCT
433.21	OCL VRTB ART W INFRCT
433.31	OCL MLT BI ART W INFRCT
433.81	OCL SPCF ART W INFRCT
433.91	OCL ART NOS W INFRCT
434.00	CRBL THRMBS WO INFRCT
434.01	CRBL THRMBS W INFRCT
434.11	CRBL EMBLSM W INFRCT
434.91	CRBL ART OCL NOS W INFRC
436	CVA

Last Updated: Version 3.2

Table 8.2 Hemorrhagic Stroke (STK)	
Code	Shortened Description
430	SUBARACHNOID HEMORRHAGE
431	INTRACEREBRAL HEMORRHAGE

Last Updated: Version 3.2

Table 12.1 Diabetes	
Code	Shortened Description
250.00	DMII WO CMP NT ST UNCINTR
250.01	DMI WO CMP NT ST UNCINTRL
250.02	DMII WO CMP UNCINTRLD
250.03	DMI WO CMP UNCINTRLD
250.10	DMII KETO NT ST UNCINTRLD

Table 12.1 Diabetes	
Code	Shortened Description
250.11	DMI KETO NT ST UNCNTRLD
250.12	DMII KETOACD UNCONTROLD
250.13	DMI KETOACD UNCONTROLD
250.20	DMII HPRSM NT ST UNCNTRL
250.21	DMI HPRSM NT ST UNCNTRLD
250.22	DMII HPROSMLR UNCONTROLD
250.23	DMI HPROSMLR UNCONTROLD
250.30	DMII O CM NT ST UNCNTRLD
250.31	DMI O CM NT ST UNCNTRLD
250.32	DMII OTH COMA UNCONTROLD
250.33	DMI OTH COMA UNCONTROLD
250.40	DMII RENL NT ST UNCNTRLD
250.41	DMI RENL NT ST UNCNTRLD
250.42	DMII RENAL UNCNTRLD
250.43	DMI RENAL UNCNTRLD
250.50	DMII OPHTH NT ST UNCNTRL
250.51	DMI OPHTH NT ST UNCNTRLD
250.52	DMII OPHTH UNCNTRLD
250.53	DMI OPHTH UNCNTRLD
250.60	DMII NEURO NT ST UNCNTRL
250.61	DMI NEURO NT ST UNCNTRLD
250.62	DMII NEURO UNCNTRLD
250.63	DMI NEURO UNCNTRLD
250.70	DMII CIRC NT ST UNCNTRLD
250.71	DMI CIRC NT ST UNCNTRLD
250.72	DMII CIRC UNCNTRLD
250.73	DMI CIRC UNCNTRLD
250.80	DMII OTH NT ST UNCNTRLD
250.81	DMI OTH NT ST UNCNTRLD
250.82	DMII OTH UNCNTRLD
250.83	DMI OTH UNCNTRLD
250.90	DMII UNSPF NT ST UNCNTRL
250.91	DMI UNSPF NT ST UNCNTRLD
250.92	DMII UNSPF UNCNTRLD
250.93	DMI UNSPF UNCNTRLD
357.2	NEUROPATHY IN DIABETES
362.0	DIABETIC RETINOPATHY NOS
366.41	DIABETIC CATARACT
648.00	DIABETES IN PREG-UNSPEC
648.01	DIABETES-DELIVERED
648.02	DIABETES-DELIVERED W P/P
648.03	DIABETES-ANTEPARTUM
648.04	DIABETES-POSTPARTUM

Table 12.2 End Stage Renal Disease (ESRD)	
Code	Shortened Description
585.6	END STAGE RENAL DISEASE

Table 12.3 Pregnancy	
Code	Shortened Description
640.00	THREATENED ABORT-UNSPEC
640.03	THREATEN ABORT-ANTEPART
640.90	HEMORR EARLY PREG-UNSPEC
640.93	HEM EARLY PREG-ANTEPART
641.00	PLACENTA PREVIA-UNSPEC
641.03	PLACENTA PREVIA-ANTEPART
641.10	PLACENTA PREV HEM-UNSPEC
641.11	PLACENTA PREV HEM-DELIV
641.13	PLACEN PREV HEM-ANTEPART
641.20	PREM SEPAR PLACEN-UNSPEC
641.23	PREM SEPAR PLAC-ANTEPART
641.80	ANTEPART HEM NEC-UNSPEC
641.83	ANTEPART HEM NEC-ANTEPAR
641.90	ANTEPART HEM NOS-UNSPEC
641.93	ANTEPART HEM NOS-ANTEPAR
642.00	ESSEN HYPERTEN PREG-UNSP
642.03	ESSEN HYPERTEN-ANTEPART
642.10	RENAL HYPERTEN PREG-UNSP
642.20	OLD HYPERTEN PREG-UNSPEC
642.23	OLD HYPERTEN NEC-ANTEPAR
642.30	TRANS HYPERTEN PREG-UNSP
642.33	TRANS HYPERTEN-ANTEPART
642.40	MILD/NOS PREECLAMP-UNSP
642.43	MILD/NOS PREECLAMP-ANTEP
642.50	SEVERE PREECLAMP-UNSPEC
642.53	SEV PREECLAMP-ANTEPARTUM
642.60	ECLAMPSIA-UNSPECIFIED
642.63	ECLAMPSIA-ANTEPARTUM
642.70	TOX W OLD HYPERTEN-UNSP
642.73	TOX W OLD HYPER-ANTEPART
642.90	HYPERTEN PREG NOS-UNSPEC
642.93	HYPERTENS NOS-ANTEPARTUM
643.00	MILD HYPEREM GRAV-UNSPEC
643.03	MILD HYPEREMESIS-ANTEPAR
643.10	HYPEREM W METAB DIS-UNSP
643.13	HYPEREM W METAB-ANTEPART
643.20	LATE VOMIT OF PREG-UNSP

Table 12.3 Pregnancy	
Code	Shortened Description
643.23	LATE VOMIT PREG-ANTEPART
643.80	VOMIT COMPL PREG-UNSPEC
643.83	VOMIT COMPL PREG-ANTEPAR
643.90	VOMIT OF PREG NOS-UNSPEC
643.93	VOMIT OF PG NOS-ANTEPART
644.00	THREAT PREM LABOR-UNSPEC
644.03	THRT PREM LABOR-ANTEPART
644.10	THREAT LABOR NEC-UNSPEC
644.13	THREAT LABOR NEC-ANTEPAR
644.20	EARLY ONSET DELIV-UNSPEC
645.10	POST TERM PREG-UNSP
645.13	POST TERM PREG-ANTEPAR
645.20	PROLONGED PREG-UNSP
645.23	PROLONGED PREG-ANTEPAR
646.00	PAPYRACEOUS FETUS-UNSPEC
646.03	PAPYRACEOUS FET-ANTEPAR
646.10	EDEMA IN PREG-UNSPEC
646.13	EDEMA IN PREG-ANTEPARTUM
646.20	RENAL DIS PREG NOS-UNSP
646.23	RENAL DIS NOS-ANTEPARTUM
646.30	HABITUAL ABORTER-UNSPEC
646.33	HABITUAL ABORT-ANTEPART
646.40	NEURITIS OF PREG-UNSPEC
646.43	NEURITIS OF PREG-ANTEPAR
646.50	BACTERIURIA PREG-UNSPEC
646.53	ASY BACTERIURIA-ANTEPART
646.60	GU INFECT IN PREG-UNSPEC
646.63	GU INFECTION-ANTEPARTUM
646.70	LIVER DIS IN PREG-UNSPEC
646.73	LIVER DISORDER-ANTEPART
646.80	PREG COMPL NEC-UNSPEC
646.83	PREG COMPL NEC-ANTEPART
646.90	PREG COMPL NOS-UNSPEC
646.93	PREG COMPL NOS-ANTEPART
647.00	SYPHILIS IN PREG-UNSPEC
647.03	SYPHILIS-ANTEPARTUM
647.10	GONORRHEA IN PREG-UNSPEC
647.13	GONORRHEA-ANTEPARTUM
647.20	OTHER VD IN PREG-UNSPEC
647.23	OTHER VD-ANTEPARTUM
647.30	TB IN PREG-UNSPECIFIED
647.33	TUBERCULOSIS-ANTEPARTUM
647.40	MALARIA IN PREG-UNSPEC
647.43	MALARIA-ANTEPARTUM
647.50	RUBELLA IN PREG-UNSPEC

Table 12.3 Pregnancy	
Code	Shortened Description
647.53	RUBELLA-ANTEPARTUM
647.60	OTH VIRUS IN PREG-UNSPEC
647.63	OTH VIRAL DIS-ANTEPARTUM
647.80	INF DIS IN PREG NEC-UNSP
647.83	INFECT DIS NEC-ANTEPART
647.90	INFECT IN PREG NOS-UNSP
647.93	INFECT NOS-ANTEPARTUM
648.00	DIABETES IN PREG-UNSPEC
648.03	DIABETES-ANTEPARTUM
648.10	THYROID DYSFUN PREG-UNSP
648.13	THYROID DYSFUNC-ANTEPART
648.20	ANEMIA IN PREG-UNSPEC
648.23	ANEMIA-ANTEPARTUM
648.30	DRUG DEPEND PREG-UNSPEC
648.33	DRUG DEPENDENCE-ANTEPART
648.40	MENTAL DIS PREG-UNSPEC
648.43	MENTAL DISORDER-ANTEPART
648.50	CONGEN CV DIS PREG-UNSP
648.53	CONGEN CV DIS-ANTEPARTUM
648.60	CV DIS NEC PREG-UNSPEC
648.63	CV DIS NEC-ANTEPARTUM
648.70	BONE DISORD IN PREG-UNSP
648.73	BONE DISORDER-ANTEPARTUM
648.80	ABN GLUCOSE IN PREG-UNSP
648.83	ABN GLUCOSE-ANTEPARTUM
648.90	OTH CURR COND PREG-UNSP
648.93	OTH CURR COND-ANTEPARTUM
649.00	TOBACCO USE DISORD-UNSP
649.03	TOBACCO USE DIS-ANTEPART
649.10	OBESITY-UNSPECIFIED
649.13	OBESITY-ANTEPARTUM
649.20	BARIATRIC SURG STAT-UNSP
649.23	BARIATRC SURG STAT-ANTEP
649.30	COAGULATION DEF-UNSPEC
649.33	COAGULATION DEF-ANTEPART
649.40	EPILEPSY-UNSPECIFIED
649.43	EPILEPSY-ANTEPARTUM
649.50	SPOTTING-UNSPECIFIED
649.53	SPOTTING-ANTEPARTUM
649.60	UTERINE SIZE DESCRP-UNSP
649.63	UTERINE SIZE DES-ANTEPAR
651.00	TWIN PREGNANCY-UNSPEC
651.03	TWIN PREGNANCY-ANTEPART
651.10	TRIPLET PREGNANCY-UNSPEC
651.13	TRIPLET PREG-ANTEPARTUM

Table 12.3 Pregnancy	
Code	Shortened Description
651.20	QUADRUPLET PREG-UNSPEC
651.23	QUADRUPLET PREG-ANTEPART
651.30	TWINS W FETAL LOSS-UNSP
651.33	TWINS W FETAL LOSS-ANTE
651.40	TRIPLETS W FET LOSS-UNSP
651.43	TRIPLETS W FET LOSS-ANTE
651.50	QUADS W FETAL LOSS-UNSP
651.53	QUADS W FETAL LOSS-ANTE
651.60	MULT GES W FET LOSS-UNSP
651.63	MULT GES W FET LOSS-ANTE
651.70	MUL GEST-FET REDUCT UNSP
651.73	MUL GEST-FET REDUCT ANTE
651.80	MULTI GESTAT NEC-UNSPEC
651.83	MULTI GEST NEC-ANTEPART
651.90	MULTI GESTAT NOS-UNSPEC
651.93	MULTI GEST NOS-ANTEPART
652.00	UNSTABLE LIE-UNSPECIFIED
652.03	UNSTABLE LIE-ANTEPARTUM
652.10	CEPHALIC VERS NOS-UNSPEC
652.13	CEPHAL VERS NOS-ANTEPART
652.20	BREECH PRESENTAT-UNSPEC
652.23	BREECH PRESENT-ANTEPART
652.30	TRANSV/OBLIQ LIE-UNSPEC
652.33	TRANSV/OBLIQ LIE-ANTEPAR
652.40	FACE/BROW PRESENT-UNSPEC
652.43	FACE/BROW PRES-ANTEPART
652.50	HIGH HEAD AT TERM-UNSPEC
652.53	HIGH HEAD TERM-ANTEPART
652.60	MULT GEST MALPRESEN-UNSP
652.63	MULT GES MALPRES-ANTEPAR
652.70	PROLAPSED ARM-UNSPEC
652.73	PROLAPSED ARM-ANTEPART
652.80	MALPOSITION NEC-UNSPEC
652.83	MALPOSITION NEC-ANTEPART
652.90	MALPOSITION NOS-UNSPEC
652.93	MALPOSITION NOS-ANTEPART
653.00	PELVIC DEFORM NOS-UNSPEC
653.03	PELV DEFORM NOS-ANTEPART
653.10	CONTRACT PELV NOS-UNSPEC
653.13	CONTRAC PELV NOS-ANTEPAR
653.20	INLET CONTRACTION-UNSPEC
653.23	INLET CONTRACT-ANTEPART
653.30	OUTLET CONTRACTION-UNSP
653.33	OUTLET CONTRACT-ANTEPART
653.40	FETOPELV DISPROP-UNSPEC

Table 12.3 Pregnancy	
Code	Shortened Description
653.43	FETOPEL DISPROP-ANTEPART
653.50	FETAL DISPROP NOS-UNSPEC
653.53	FETAL DISPRO NOS-ANTEPAR
653.60	HYDROCEPHAL FETUS-UNSPEC
653.63	HYDROCEPH FETUS-ANTEPART
653.70	OTH ABN FET DISPROP-UNSP
653.73	OTH ABN FET DISPRO-ANTEP
653.80	DISPROPORTION NEC-UNSPEC
653.83	DISPROPOR NEC-ANTEPARTUM
653.90	DISPROPORTION NOS-UNSPEC
653.93	DISPROPOR NOS-ANTEPARTUM
654.00	CONG ABN UTER PREG-UNSP
654.03	CONGEN ABN UTER-ANTEPART
654.10	UTER TUMOR IN PREG-UNSP
654.13	UTERINE TUMOR-ANTEPARTUM
654.20	PREV C-DELIVERY UNSPEC
654.23	PREV C-DELIVERY-ANTEPART
654.30	RETROVERT UTERUS-UNSPEC
654.33	RETROVERT UTER-ANTEPART
654.40	ABN GRAV UTERUS NEC-UNSP
654.43	ABN UTERUS NEC-ANTEPART
654.50	CERV INCOMPET PREG-UNSP
654.53	CERV INCOMPET-ANTEPARTUM
654.60	ABN CERVIX NEC PREG-UNSP
654.63	ABN CERVIX NEC-ANTEPART
654.70	ABN VAGINA IN PREG-UNSP
654.73	ABNORM VAGINA-ANTEPARTUM
654.80	ABN VULVA IN PREG-UNSPEC
654.83	ABNORMAL VULVA-ANTEPART
654.90	ABN PEL NEC IN PREG-UNSP
654.93	ABN PELV ORG NEC-ANTEPAR
655.00	FETAL CNS MALFORM-UNSPEC
655.03	FETAL CNS MALFOR-ANTEPAR
655.10	FETAL CHROMOS ABN-UNSPEC
655.13	FET CHROMO ABN-ANTEPART
655.20	FAMIL HEREDIT DIS-UNSPEC
655.23	FAMIL HERED DIS-ANTEPART
655.30	FET DAMG D/T VIRUS-UNSP
655.33	FET DAMG D/T VIRUS-ANTEP
655.40	FET DAMG D/T DIS-UNSPEC
655.43	FET DAMG D/T DIS-ANTEPAR
655.50	FETAL DAMG D/T DRUG-UNSP
655.53	FET DAMG D/T DRUG-ANTEPA
655.60	RADIAT FETAL DAMAG-UNSP
655.63	RADIAT FET DAMAG-ANTEPAR

Table 12.3 Pregnancy	
Code	Shortened Description
655.70	DECREASE FETL MOVMT UNSP
655.73	DEC FETAL MOVMT ANTEPART
655.80	FETAL ABNORM NEC-UNSPEC
655.83	FETAL ABNORM NEC-ANTEPAR
655.90	FETAL ABNORM NOS-UNSPEC
655.93	FETAL ABNORM NOS-ANTEPAR
656.00	FETAL-MATERNAL HEM-UNSP
656.03	FETAL-MATERN HEM-ANTEPAR
656.10	RH ISOIMMUNIZATION-UNSP
656.13	RH ISOIMMUNIZAT-ANTEPART
656.20	ABO ISOIMMUNIZATION-UNSP
656.23	ABO ISOIMMUNIZAT-ANTEPAR
656.30	FETAL DISTRESS-UNSPEC
656.33	FETAL DISTRESS-ANTEPART
656.40	INTRAUTERINE DEATH-UNSP
656.43	INTRAUTER DEATH-ANTEPART
656.50	POOR FETAL GROWTH-UNSPEC
656.53	POOR FETAL GRTH-ANTEPART
656.60	EXCESS FETAL GRTH-UNSPEC
656.63	EXCESS FET GRTH-ANTEPART
656.70	OTH PLACENT COND-UNSPEC
656.73	OTH PLACENT COND-ANTEPAR
656.80	FET/PLAC PROB NEC-UNSPEC
656.83	FET/PLAC PROB NEC-ANTEPA
656.90	FET/PLAC PROB NOS-UNSPEC
656.93	FET/PLAC PROB NOS-ANTEPA
657.0	POLYHYDRAMNIOS-UNSPEC
657.3	POLYHYDRAMNIOS-ANTEPART
658.00	OLIGOHYDRAMNIOS-UNSPEC
658.03	OLIGOHYDRAMNIOS-ANTEPAR
658.10	PREM RUPT MEMBRAN-UNSPEC
658.13	PREM RUPT MEMB-ANTEPART
658.20	PROLONG RUPT MEMB-UNSPEC
658.23	PROLONG RUP MEMB-ANTEPAR
658.30	ARTIFIC RUPT MEMBR-UNSP
658.33	ARTIF RUPT MEMB-ANTEPART
658.40	AMNIOTIC INFECTION-UNSP
658.43	AMNIOTIC INFECT-ANTEPART
658.80	AMNIOTIC PROB NEC-UNSPEC
658.83	AMNION PROB NEC-ANTEPART
658.90	AMNIOTIC PROB NOS-UNSPEC
658.93	AMNION PROB NOS-ANTEPART
659.00	FAIL MECHAN INDUCT-UNSP
659.03	FAIL MECH INDUCT-ANTEPAR
659.10	FAIL INDUCTION NOS-UNSP

Table 12.3 Pregnancy

Code	Shortened Description
659.13	FAIL INDUCT NOS-ANTEPART
659.20	PYREXIA IN LABOR-UNSPEC
659.23	PYREXIA IN LABOR-ANTEPAR
659.30	SEPTICEMIA IN LABOR-UNSP
659.33	SEPTICEM IN LABOR-ANTEPA
659.40	GRAND MULTIPARITY-UNSPEC
659.43	GRAND MULTIPARITY-ANTEPA
659.50	ELDERLY PRIMIGRAVID-UNSP
659.53	ELDER PRIMIGRAVID-ANTEPA
659.60	ELDERLY MULTIGRAVIDA-UNS
659.63	ELDERLY MULTIGRAVD-ANTEP
659.70	ABN FTL HRT RATE/RHY-UNS
659.73	ABN FTL HRT RATE/RHY-ANT
659.80	COMPLIC LABOR NEC-UNSP
659.83	COMPL LABOR NEC-ANTEPART
659.90	COMPLIC LABOR NOS-UNSP
659.93	COMPL LABOR NOS-ANTEPART
660.00	OBSTRUCT/FET MALPOS-UNSP
660.03	OBSTRUC/FET MALPOS-ANTEP
660.10	BONY PELV OBSTRUC-UNSPEC
660.13	BONY PELV OBSTRUC-ANTEPA
660.20	ABN PELV TISS OBSTR-UNSP
660.23	ABN PELV TIS OBSTR-ANTEP
660.30	PERSIST OCCIPITPOST-UNSP
660.33	PERSIST OCCIPTPOST-ANTEP
660.40	SHOULDER DYSTOCIA-UNSPEC
660.43	SHOULDER DYSTOCIA-ANTEPA
660.50	LOCKED TWINS-UNSPECIFIED
660.53	LOCKED TWINS-ANTEPARTUM
660.60	FAIL TRIAL LAB NOS-UNSP
660.63	FAIL TRIAL LAB NOS-ANTEP
660.70	FAILE6D FORCEP NOS-UNSPEC
660.73	FAIL FORCEPS NOS-ANTEPAR
660.80	OBSTRUC LABOR NEC-UNSPEC
660.83	OBSTRUC LABOR NEC-ANTEPA
660.90	OBSTRUC LABOR NOS-UNSPEC
660.93	OBSTRUC LABOR NOS-ANTEPA
661.00	PRIM UTERINE INERT-UNSP
661.03	PRIM UTER INERT-ANTEPART
661.10	SEC UTERINE INERT-UNSPEC
661.13	SEC UTERINE INERT-ANTEPA
661.20	UTERINE INERTIA NEC-UNSP
661.23	UTERINE INERT NEC-ANTEPA
661.30	PRECIPITATE LABOR-UNSPEC
661.33	PRECIPITATE LABOR-ANTEPA

Table 12.3 Pregnancy	
Code	Shortened Description
661.40	UTER DYSTOCIA NOS-UNSPEC
661.43	UTER DYSTOCIA NOS-ANTEPA
661.90	ABNORMAL LABOR NOS-UNSP
661.93	ABNORM LABOR NOS-ANTEPAR
662.00	PROLONGED 1ST STAGE-UNSP
662.03	PROLONG 1ST STAGE-ANTEPA
662.10	PROLONGED LABOR NOS-UNSP
662.13	PROLONG LABOR NOS-ANTEPA
662.20	PROLONGED 2ND STAGE-UNSP
662.23	PROLONG 2ND STAGE-ANTEPA
662.30	DELAY DEL 2ND TWIN-UNSP
662.33	DELAY DEL 2 TWIN-ANTEPAR
663.00	CORD PROLAPSE-UNSPEC
663.03	CORD PROLAPSE-ANTEPARTUM
663.10	CORD COMPRESS NEC-UNSPEC
663.13	CORD COMPRES NEC-ANTEPAR
663.20	CORD AROUND NECK-UNSPEC
663.23	CORD AROUND NECK-ANTEPAR
663.30	CORD ENTANGLE NEC-UNSPEC
663.33	CORD ENTANGL NEC-ANTEPAR
663.40	SHORT CORD-UNSPECIFIED
663.43	SHORT CORD-ANTEPARTUM
663.50	VASA PREVIA-UNSPECIFIED
663.53	VASA PREVIA-ANTEPARTUM
663.60	VASC LESION CORD-UNSPEC
663.63	VASC LESION CORD-ANTEPAR
663.80	CORD COMPLICAT NEC-UNSP
663.83	CORD COMPL NEC-ANTEPART
663.90	CORD COMPLICAT NOS-UNSP
663.93	CORD COMPL NOS-ANTEPART
664.00	DEL W 1 DEG LACERAT-UNSP
664.10	DEL W 2 DEG LACERAT-UNSP
664.20	DEL W 3 DEG LACERAT-UNSP
664.30	DEL W 4 DEG LACERAT-UNSP
664.40	OB PERINEAL LAC NOS-UNSP
664.50	OB PERINEAL HEMATOM-UNSP
664.60	ANAL SPHINCTER TEAR NOS
664.80	OB PERIN TRAUM NEC-UNSP
664.90	OB PERIN TRAUM NOS-UNSP
665.00	PRELABOR RUPT UTER-UNSP
665.03	PRELAB RUPT UTER-ANTEPAR
665.10	RUPTURE UTERUS NOS-UNSP
665.20	INVERSION OF UTERUS-UNSP
665.30	LACERAT OF CERVIX-UNSPEC
665.40	HIGH VAGINAL LACER-UNSP

Table 12.3 Pregnancy	
Code	Shortened Description
665.50	OB INJ PELV ORG NEC-UNSP
665.60	DAMAGE TO PELVIC JT-UNSP
665.70	OB PELVIC HEMATOMA-UNSP
665.80	OB TRAUMA NEC-UNSPEC
665.83	OB TRAUMA NEC-ANTEPARTUM
665.90	OB TRAUMA NOS-UNSPEC
665.93	OB TRAUMA NOS-ANTEPARTUM
666.00	THIRD-STAGE HEM-UNSPEC
668.00	PULM COMPL IN DEL-UNSP
668.03	PULM COMPLICAT-ANTEPART
668.10	HEART COMPL IN DEL-UNSP
668.13	HEART COMPLIC-ANTEPART
668.20	CNS COMPL LABOR/DEL-UNSP
668.23	CNS COMPL IN DEL-ANTEPAR
668.80	ANESTH COMP DEL NEC-UNSP
668.83	ANESTH COMPL ANTEPARTUM
668.90	ANESTH COMP DEL NOS-UNSP
668.93	ANESTH COMPL-ANTEPARTUM
669.00	MATERNAL DISTRESS-UNSPEC
669.03	MATERN DISTRESS-ANTEPAR
669.10	OBSTETRIC SHOCK-UNSPEC
669.13	OBSTETRIC SHOCK-ANTEPAR
669.20	MATERN HYPOTENS SYN-UNSP
669.23	MATERN HYPOTENS-ANTEPAR
669.30	AC REN FAIL W DELIV-UNSP
671.00	VARIC VEIN LEG PREG-UNSP
671.03	VARIC VEIN LEG-ANTEPART
671.10	VARIC VULVA PREG-UNSPEC
671.13	VARICOSE VULVA-ANTEPART
671.20	THROMBOPHLEB PREG-UNSPEC
671.23	THROMBOPHLEBIT-ANTEPART
671.30	DEEP THROMB ANTEPAR-UNSP
671.33	DEEP VEIN THROMB-ANTEPAR
671.40	DEEP THROMB POSTPAR-UNSP
671.50	THROMBOSIS NEC PREG-UNSP
671.53	THROMBOSIS NEC-ANTEPART
671.80	VEN COMPL PREG NEC-UNSP
671.83	VENOUS COMPL NEC-ANTEPAR
671.90	VEN COMPL PREG NOS-UNSP
671.93	VENOUS COMPL NOS-ANTEPAR
673.10	AMNIOTIC EMBOLISM-UNSPEC
673.13	AMNIOTIC EMBOL-ANTEPART
673.23	PULM EMBOL NOS-ANTEPART
673.30	OB PYEMIC EMBOL-UNSPEC
673.33	OB PYEMIC EMBOL-ANTEPART

Table 12.3 Pregnancy	
Code	Shortened Description
673.80	OB PULMON EMBOL NEC-UNSP
673.83	PULMON EMBOL NEC-ANTEPAR
674.03	CEREBROVASC DIS-ANTEPART
674.40	PLACENTAL POLYP-UNSPEC
674.50	PERIPART CARDIOMY-UNSPEC
674.53	PERIPARTUM CARD-ANTEPART
674.80	PUERP COMPL NEC-UNSPEC
674.90	PUERP COMPL NOS-UNSPEC
675.00	INFECT NIPPLE PREG-UNSP
675.03	INFECT NIPPLE-ANTEPARTUM
675.10	BREAST ABSCESS PREG-UNSP
675.13	BREAST ABSCESS-ANTEPART
675.20	MASTITIS IN PREG-UNSPEC
675.23	MASTITIS-ANTEPARTUM
675.80	BREAST INF PREG NEC-UNSP
675.83	BREAST INF NEC-ANTEPART
675.90	BREAST INF PREG NOS-UNSP
675.93	BREAST INF NOS-ANTEPART
676.00	RETRACT NIPPLE PREG-UNSP
676.03	RETRACT NIPPLE-ANTEPART
676.10	CRACKED NIPPLE PREG-UNSP
676.13	CRACKED NIPPLE-ANTEPART
676.20	BREAST ENGORGE-UNSPEC
676.23	BREAST ENGORGE-ANTEPART
676.30	BREAST DIS PREG NEC-UNSP
676.33	BREAST DIS NEC-ANTEPART
676.40	LACTATION FAIL-UNSPEC
676.43	LACTATION FAIL-ANTEPART
676.50	SUPPR LACTATION-UNSPEC
676.53	SUPPR LACTATION-ANTEPAR
676.60	GALACTORRHEA PREG-UNSPEC
676.63	GALACTORRHEA-ANTEPARTUM
676.80	LACTATION DIS NEC-UNSPEC
676.83	LACTAT DIS NEC-ANTEPART
676.90	LACTATION DIS NOS-UNSPEC
676.93	LACTAT DIS NOS-ANTEPART
677	LATE EFFCT CMPLCATN PREG
V22.0	SUPERVIS NORMAL 1ST PREG
V22.1	SUPERVIS OTH NORMAL PREG
V22.2	PREG STATE, INCIDENTAL
V23.0	PREG W HX OF INFERTILITY
V23.1	PREG W HX-TROPHOBLAS DIS
V23.2	PREG W HX OF ABORTION
V23.3	GRAND MULTIPARITY
V23.41	PREG W HX PRE-TERM LABOR

Table 12.3 Pregnancy	
Code	Shortened Description
V23.49	PREG W POOR OBS HX NEC
V23.5	PREG W POOR REPRODUCT HX
V23.7	INSUFFICNT PRENATAL CARE
V23.81	SUPRV ELDERLY PRIMIGRAV
V23.82	SUPRV ELDERLY MULTIGRAV
V23.83	SUPRV YOUNG PRIMIGRAVIDA
V23.84	SUPRV YOUNG MULTIGRAVIDA
V23.89	SUPRV HIGH-RISK PREG NEC
V23.9	SUPRV HIGH-RISK PREG NOS

Last Updated: Version 3.2

Table 12.4 Asthma	
Code	Shortened Description
493.00	EXTRINSIC ASTHMA NOS
493.01	EXT ASTHMA W STATUS ASTH
493.02	EXT ASTHMA W(ACUTE) EXAC
493.10	INTRINSIC ASTHMA NOS
493.11	INT ASTHMA W STATUS ASTH
493.12	INT ASTHMA W (AC) EXAC
493.20	CHRONIC OBST ASTHMA NOS
493.21	CH OB ASTHMA W STAT ASTH
493.22	CH OBST ASTH W (AC) EXAC
493.81	EXERCSE IND BRONCHOSPASM
493.82	COUGH VARIANT ASTHMA
493.90	ASTHMA NOS
493.91	ASTHMA W STATUS ASTHMAT
493.92	ASTHMA NOS W (AC) EXAC

Last Updated: Version 3.2

Table 12.5 Chronic Obstructive Pulmonary Disease (COPD)	
Code	Shortened Description
491.0	SIMPLE CHR BRONCHITIS
491.1	MUCOPURUL CHR BRONCHITIS
491.20	OBST CHR BRONC W/O EXAC
491.21	OBS CHR BRONC W(AC) EXAC
491.22	OBS CHR BRONC W AC BRONC
491.8	CHRONIC BRONCHITIS NEC
491.9	CHRONIC BRONCHITIS NOS
492.0	EMPHYSEMATOUS BLEB
492.8	EMPHYSEMA NEC
496	CHR AIRWAY OBSTRUCT NEC

Table 12.6 Nephrotic Syndrome	
Code	Shortened Description
581.0	NEPHROTIC SYN, PROLIFER
581.1	EPIMEMBRANOUS NEPHRITIS
581.2	MEMBRANOPROLIF NEPHROSIS
581.3	MINIMAL CHANGE NEPHROSIS
581.81	NEPHROTIC SYN IN OTH DIS
581.89	NEPHROTIC SYNDROME NEC
581.9	NEPHROTIC SYNDROME NOS

Last Updated: Version 3.2

Table 12.7 Asplenia	
Code	Shortened Description
282.6	SICKLE CELL DISEASE NOS
746.87	MALPOSITION OF HEART
759.0	ANOMALIES OF SPLEEN

Last Updated: Version 3.2

Table 12.8 Human Immunodeficiency Virus (HIV)	
Code	Shortened Description
042	HUMAN IMMUNO VIRUS DIS
079.53	HIV-2 INFECTION OTH DIS
V08	ASYMP HIV INFECTN STATUS

Last Update: Version 3.2

Table 12.9 Influenza	
Code	Shortened Description
99.52	INFLUENZA VACCINATION

NATIONAL QUALITY FORUM

Measure Evaluation 4.1 December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the [evaluation criteria](#) are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all **yellow highlighted** areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all **pink** highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met

C = Completely (unquestionably demonstrated to meet the criterion)

P = Partially (demonstrated to partially meet the criterion)

M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)

N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)

NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) NQF Review #: 0300	NQF Project: Surgery Endorsement Maintenance 2010
MEASURE DESCRIPTIVE INFORMATION	
De.1 Measure Title: Cardiac patients with controlled 6AM postoperative serum glucose	
De.2 Brief description of measure: Percentage of cardiac surgery patients with controlled 6a.m. serum glucose (</=200 mg/dl) on postoperative day (POD) 1 and POD 2	
1.1-2 Type of Measure: Process	
De.3 If included in a composite or paired with another measure, please identify composite or paired measure N/A	
De.4 National Priority Partners Priority Area: Population health	
De.5 IOM Quality Domain: Safety	
De.6 Consumer Care Need: Getting better	

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
<p>A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. <i>Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.</i></p> <p>A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)? Yes</p> <p>A.2 Indicate if Proprietary Measure (as defined in measure steward agreement):</p> <p>A.3 Measure Steward Agreement: Government entity and in the public domain - no agreement necessary</p> <p>A.4 Measure Steward Agreement attached:</p>	<p>A</p> <p>Y <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p>B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least</p>	<p>B</p> <p>Y <input type="checkbox"/></p>

every 3 years. Yes, information provided in contact section	N <input type="checkbox"/>
<p>C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ► Purpose: Public reporting, Internal quality improvement Accountability, Payment incentive, Accreditation</p>	<p>C Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1 Testing: Yes, fully developed and tested D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures? Yes</p>	<p>D Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p>(for NQF staff use) Have all conditions for consideration been met? Staff Notes to Steward (if submission returned):</p>	<p>Met Y <input type="checkbox"/> N <input type="checkbox"/></p>
Staff Notes to Reviewers (issues or questions regarding any criteria):	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
<p>Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria) 1a. High Impact</p>	Eval Ratin g
(for NQF staff use) Specific NPP goal:	
<p>1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, Frequently performed procedure, Patient/societal consequences of poor quality 1a.2 1a.3 Summary of Evidence of High Impact: Hyperglycemia has been associated with increased in-hospital morbidity and mortality for multiple medical and surgical conditions. In a study by Zerr, et al (1997), the risk of infection was significantly higher for patients undergoing coronary artery bypass graft (CABG) if blood glucose levels were elevated. Furthermore, Zerr, et al (2001), demonstrated that the incidence of deep wound infections in diabetic patients undergoing cardiac surgery was reduced by controlling mean blood glucose levels below 200mg/dL in the immediate postoperative period. Latham, et al (2001), found that hyperglycemia in the immediate postoperative phase increases the risk of infection in both diabetic and nondiabetic patients and the higher the level of hyperglycemia, the higher the potential for infection in both patient populations. A study conducted in Leuven, Belgium (Van den Berghe, 2001), demonstrated that intensive insulin therapy not only reduced overall in-hospital mortality but also decreased blood stream infections, acute renal failure, red cell transfusions, ventilator support, and intensive care. Hyperglycemia is a risk factor that, once identified, could minimize adverse outcomes for cardiac surgical patients.</p>	
<p>1a.4 Citations for Evidence of High Impact: Gordon SM, Serkey JM, Barr C, et al. The relationship between glycosylated hemoglobin (HgA1c) levels and postoperative infections in patients undergoing primary coronary artery bypass surgery (CABG.) Infect Control Hosp Epidemiol. 1997;18(No.5, Part 2):29(58.) PMID: 00000. ? Furnary AP, Zerr KJ, Grunkemeier GL, et al. Continuous intravenous insulin infusion reduces the incidence of</p>	<p>1a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

deep sternal wound infection in diabetic patients after cardiac surgical procedures. *Ann Thorac Surg.* 1999;67:352-360. PMID: 10197653.
 ?
 Golden SH, Peart-Vigilance C, Kao WH, et al. Perioperative glycemic control and the risk of infectious complications in a cohort of adults with diabetes. *Diabetes Care.* 1999 Sep;22(9):1408-1414. PMID: 10480501.
 ?
 Trick WE, Scheckler WE, Tokars JI, et al. Modifiable risk factors associated with deep sternal site infection after coronary artery bypass grafting. *J Thorac Cardiovasc Surg.* 2000 Jan;119(1):108-114. PMID: 10612768.
 ?
 Trick WE, Scheckler WE, Tokars JI, et al. Risk factors for radial artery harvest site infection following coronary artery bypass graft surgery. *Clin Infect Dis.* 2000 Feb;30(2):270-275.PMID: 10671327.
 ?
 Menzin J, Langly-Hawthron C, Friedman M, et al. Potential short-term economic benefits of improved glycemic control: a managed care prospective. *Diabetes Care.* 2001 Jan;24(1):51-55. PMID: 11194241.
 ?
 Dellinger E. Preventing Surgical-Site Infections: The importance of timing and glucose control. *Infect Control Hosp Epidemiol.* 2001;22(10):604-606. PMID: 11776344.
 ?
 Latham R, Lancaster AD, Covington JF, et al. The association of diabetes and glucose control with surgical-site infections among cardiothoracic surgery
 Specifications Manual for National Hospital Inpatient Quality Measures
 Discharges 10-01-10 (4Q10) through 03-31-11 (1Q11) SCIP-Inf-4-3
 patients. *Infect Control Hosp Epidemiol.* 2001 Oct;22(10):607-612. PMID: 11776345.
 ?
 McAlister FA, Man J, Bistriz L, et al. Diabetes and coronary artery bypass surgery: an examination of perioperative glycemic control and outcomes. *Diabetes Care.* 2003 May;26(5):1518-1524. PMID: 12716815.
 ?
 Estrada CA, Young JA, Nifong LW, et al. Outcomes and perioperative hyperglycemia in patients with or without diabetes mellitus undergoing coronary artery bypass grafting. *Ann Thorac Surg.* 2003 May;75(5):1392-1399. PMID: 12735552.
 ?
 Terranova A. The effects of diabetes mellitus on wound healing. *Plast Surg Nurs.* 1991;11(1):20-25. PMID: 2034714.
 ?
 Woodruff RE, Lewis SB, McLeskey CH, et al. Avoidance of surgical hyperglycemia in diabetic patients. *JAMA.* 1980 Jul 1;244(2):166-168. PMID: 6991732.
 ?
 Dellinger EP, Gross PA, Barrett TL, et al: Quality standard for antimicrobial prophylaxis in surgical procedures. *Infectious Diseases Society of America. Clin Infect Dis.* 1994;18: 422-427. PMID: 8207176.
 ?
 Zerr KJ, Furnary AP, Grunkemeier GL, et al. Glucose control lowers the risk of wound infection in diabetics after open heart operations. *Ann Thorac Surg.* 1997 Feb;63(2):356-361. PMID: 9033300.
 ?
 Pomposelli JJ, Baxter JK 3rd, Babineau TJ, et al. Early postoperative glucose control predicts nosocomial infection rate in diabetic patients. *J Parenter Enteral Nutr.* 1998 Mar-Apr;22(2):77-81. PMID: 9527963.
 ?
 Van den Berghe G, Wouters P, Weekers F, et al. Intensive insulin therapy in the critically ill patients. *N Engl J Med.* 2001 Nov 8;345(19):1359-1367. PMID: 11794168.

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: Controlling hyperglycemia can result in a decrease in infection rates in those undergoing cardiac surgery. Infections increase cost to the patient and to the facility. Monitoring glucose on POD 1 and POD 2 may increase the likelihood of additional monitoring being performed, thus reducing the adverse effects of hyperglycemia in this population.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:

In a national sample of 19,497 Medicare patients undergoing surgery in US hospitals during the first quarter

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of 2005, the rate of performance for this measure was 80%. In the most recent quarter of data, the national rate was 93.4%.

1b.3 Citations for data on performance gap:

This data is collected on a nation-wide basis, with almost 4000 hospitals reporting data. For first quarter 2010 (most recent data available): In 1,177 facilities with 44,304 eligible cases, the rate was 93.4 %.

1b.4 Summary of Data on disparities by population group:

There are disparities reports for the inpatient core measures that are being reviewed by CMS.

1b.5 Citations for data on Disparities:

This is probably supposed to be the data/sample for 1b.4.

1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*): Hyperglycemia is a risk factor that, once identified, could minimize adverse outcomes for cardiac surgical patients. Controlled blood glucose on POD 1 and POD 2 can contribute to lower infection rates.

1c.2-3. Type of Evidence: Cohort study, Randomized controlled trial, Expert opinion, Systematic synthesis of research

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*):

Postoperative hyperglycemia and previously undiagnosed diabetes are associated with development of SSIs among cardiothoracic surgery patients. Screening for diabetes and hyperglycemia among patients having cardiothoracic surgery may be warranted to prevent postoperative and chronic complications of this metabolic abnormality.

The incidence of deep wound infection in diabetic patients was reduced after implementation of a protocol to maintain mean blood glucose level less than 200 mg/dL in the immediate postoperative period.

Intensive insulin therapy to maintain blood glucose at or below 110 mg per deciliter reduces morbidity and mortality among critically ill patients in the surgical intensive care unit.

1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by whom*):

1c.6 Method for rating evidence:

1c.7 Summary of Controversy/Contradictory Evidence: There has not been controversy or contradictory evidence for this measure.

1c.8 Citations for Evidence (*other than guidelines*): Latham R, Lancaster AD, Covington JF, et al. The association of diabetes and glucose control with surgical-site infections among cardiothoracic surgery patients. *Infect Control Hosp Epidemiol.* 2001 Oct;22(10):607-612. PMID: 11776345.

Zerr KJ, Furnary AP, Grunkemeier GL, et al. Glucose control lowers the risk of wound infection in diabetics after open heart operations. *Ann Thorac Surg.* 1997 Feb;63(2):356-361. PMID: 9033300

Van den Berghe G, Wouters P, Weekers F, et al. Intensive insulin therapy in the critically ill patients. *N Engl J Med.* 2001 Nov 8;345(19):1359-1367. PMID: 11794168.

1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number*):

There are no guidelines for this measure, only supporting evidence. The measure's use of target glucose of ≤ 200 mg/dL is very generous.

1c.10 Clinical Practice Guideline Citation:

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<p>1c.11 National Guideline Clearinghouse or other URL:</p> <p>1c.12 Rating of strength of recommendation (also provide narrative description of the rating and by whom):</p> <p>1c.13 Method for rating strength of recommendation (If different from USPSTF system, also describe rating and how it relates to USPSTF):</p> <p>1c.14 Rationale for using this guideline over others:</p>	
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Importance to Measure and Report</i>?</p>	1
<p>Steering Committee: Was the threshold criterion, <i>Importance to Measure and Report</i>, met? Rationale:</p>	<p>1</p> <p>Y <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
<p>Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)</p>	Eval Rating
2a. MEASURE SPECIFICATIONS	
<p>S.1 Do you have a web page where current detailed measure specifications can be obtained? S.2 If yes, provide web page URL:</p> <p>2a. Precisely Specified</p>	
<p>2a.1 Numerator Statement (Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome): Surgery patients with controlled 6a.m. serum glucose (< /=200 mg/dl) on postoperative day (POD) 1 and POD 2</p> <p>2a.2 Numerator Time Window (The time period in which cases are eligible for inclusion in the numerator): Postoperative day one and postoperative day two</p> <p>2a.3 Numerator Details (All information required to collect/calculate the numerator, including all codes, logic, and definitions): Required data elements: Glucose POD 1, Glucose POD 2</p>	
<p>2a.4 Denominator Statement (Brief, text description of the denominator - target population being measured): Cardiac surgery patients with no evidence of prior infection</p> <p>Include patients with an ICD-9-CM Principle Procedure code or ICD-9-CM Other Procedure codes of selected surgeries AND an ICD-9-CM for ICD-9-CM codes Principle Procedure code or ICD-9-CM Other Procedure codes of selected surgeries</p> <p>2a.5 Target population gender: Female, Male</p> <p>2a.6 Target population age range: > /= 18 years of age</p> <p>2a.7 Denominator Time Window (The time period in which cases are eligible for inclusion in the denominator): Inpatient admission to discharge</p>	<p>2a-specs</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

2a.8 Denominator Details (All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions):

Data elements:

- Anesthesia End Date
- Anesthesia Start Date
- Admission Date
- Birthdate
- Clinical Trial
- Discharge Date
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- Infection Prior to Anesthesia
- Laparoscope
- Perioperative Death

2a.9 Denominator Exclusions (Brief text description of exclusions from the target population): Excluded Populations

- Patients less than 18 years of age
- Patients who have a length of Stay greater than 120 days
- Patients who had a principal diagnosis suggestive of preoperative infectious diseases (as defined in Appendix A, Table 5.09 for ICD-9-CM codes)
- Burn and transplant patients (as defined in Appendix A, Tables 5.14 and 5.15 for ICD-9-CM codes)
- Patients whose ICD-9-CM principal procedure was performed entirely by Laparoscope
- Patients enrolled in clinical trials
- Patients whose ICD-9-CM principal procedure occurred prior to the date of admission
- Patients with physician/advanced practice nurse/physician assistant (physician/APN/PA) documented infection prior to surgical procedure of interest
- Patients who expired perioperatively

2a.10 Denominator Exclusion Details (All information required to collect exclusions to the denominator, including all codes, logic, and definitions):

Data Elements:

- Anesthesia End Date
- Anesthesia Start Date
- Admission Date
- Birthdate
- Clinical Trial
- Discharge Date
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- Infection Prior to Anesthesia
- Laparoscope
- Perioperative Death

2a.11 Stratification Details/Variables (All information required to stratify the measure including the stratification variables, all codes, logic, and definitions):

No stratification

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method):

N/A

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion

2a.20 Interpretation of Score: Better quality = Higher score

2a.21 Calculation Algorithm (Describe the calculation of the measure as a flowchart or series of steps):

SCIP-Infection (Inf)-4: Cardiac Surgery Patients With Controlled 6 A.M. Postoperative Blood Glucose
 Numerator: Surgery patients with controlled 6 A.M. blood glucose (less than or equal to 200 milligrams per deciliter [mg/dL]) on Postoperative Day (POD) 1 and POD 2.

Denominator: Cardiac surgery patients with no evidence of prior infection.

Variable Key: Patient Age, Days I, Surgery Days

1.
Start processing. Run cases that are included in the Surgical Care Improvement Project (SCIP) Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2.
Calculate Patient Age. The Patient Age, in years, is equal to the Admission Date minus the Birthdate. Use the month and day portion of admission date and birthdate to yield the most accurate age.
3.
Check Patient Age
 - a.
If Patient Age is less than 18 years, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - b.
If Patient Age is greater than or equal to 18 years, continue processing and proceed to ICD-9-CM Principal Procedure Code.
4.
Check ICD-9-CM Principal Procedure Code
 - a.
If the ICD-9-CM Principal Procedure Code is not on Table 5.11, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - b.
If the ICD-9-CM Principal Procedure Code is on Table 5.11, continue processing and proceed to ICD-9-CM Principal Diagnosis Code.
5.
Check ICD-9-CM Principal Diagnosis Code
 - a.
If the ICD-9-CM Principal Diagnosis Code is on Table 5.09, 5.14, or 5.15, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - b.
If the ICD-9-CM Principal Diagnosis Code is not on Table 5.09, 5.14, or 5.15, continue processing and proceed to Laparoscope.
6.
Check Laparoscope
 - a.
If Laparoscope is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b.
If Laparoscope equals 1 or 3, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - c.
If Laparoscope equals 2, continue processing and proceed to Clinical Trial.
7.
Check Clinical Trial
 - a.
If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b.
If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - c.
If Clinical Trial equals No, continue processing and proceed to Anesthesia Start Date.
8.
Check Anesthesia Start Date

- a.
If the Anesthesia Start Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b.
If the Anesthesia Start Date equals Unable To Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c.
If Anesthesia Start Date equals a Non Unable To Determine Value, continue processing and proceed to the Surgery Days calculation.
9.
Calculate Surgery Days. Surgery Days, in days, is equal to the Anesthesia Start Date minus the Admission Date.
10.
Check Surgery Days
- a.
If the Surgery Days is less than zero, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- b.
If the Surgery Days is greater than or equal to zero, continue processing and proceed to Infection Prior to Anesthesia.
11.
Check Infection Prior to Anesthesia
- a.
If Infection Prior to Anesthesia is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b.
If Infection Prior to Anesthesia equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- c.
If Infection Prior to Anesthesia equals No, continue processing and proceed to Perioperative Death.
SCIP-Inf-4-8
12.
Check Perioperative Death
- a.
If Perioperative Death is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b.
If Perioperative Death equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- c.
If Perioperative Death equals No, continue processing and proceed to Anesthesia End Date.
13.
Check Anesthesia End Date
- a.
If the Anesthesia End Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b.
If the Anesthesia End Date equals Unable to Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c.
If the Anesthesia End Date equals a Non Unable to Determine value, continue processing and proceed to the Days I calculation.
14.
Calculate Days I. Days I, in days, is equal to the Discharge Date minus the Anesthesia End Date.
15.
Check Days I
- a.
If Days I is less than 2 days, the case will proceed to a Measure Category Assignment of B and will not be in

the Measure Population. Stop processing.

b.

If Days I is greater than or equal to 2 days, continue processing and proceed to Glucose POD 1.

16.

Check POD 1

a.

If Glucose POD 1 is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b.

If Glucose POD 1 is greater than 200 or Unable to Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

c.

If Glucose POD 1 is less than or equal to 200, continue processing and proceed to Glucose POD 2.

17.

Check POD 2

a.

If Glucose POD 2 is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

2a.22 Describe the method for discriminating performance (e.g., significance testing):

Method for discriminating performance: Benchmarks are established using the ABC methodology, based on the actual performance of the top facilities. ABC benchmarks identify superior performance and encourage poorer performers to improve. It is data-driven, peer-group performance feedback used to positively affect outcomes.

2a.23 Sampling (Survey) Methodology *If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):*

The SCIP Topic Population (common to all SCIP measures) is defined as patients admitted to the hospital for inpatient acute care with an ICD-9-CM Principal Procedure Code for SCIP as defined in Appendix A, Table 5.10 and a Length of Stay (Discharge Date - Admission Date) <= 120 days. There are eight distinct strata or sub-populations within the SCIP Topic Population, each identified by a specific group of procedure codes. The patients in each stratum are counted in the Initial Patient Population of multiple measures.

The following sample size tables for each option automatically build in the number of cases needed to obtain the required sample sizes.

Quarterly Sampling

For hospitals selecting sample cases for SCIP, a modified sampling procedure is required. Hospitals selecting sample cases for this set must ensure that each individual stratum's population and quarterly sample size meets the following conditions:

- Select within each of the seven individual measure stratum (e.g., colorectal surgery, hip arthroplasty, etc.) and the 8th SCIP stratum (Table 5.25 in Appendix A).

Quarterly Sample Size

Based on Initial Patient Population Size for the SCIP Measure Set

Hospital's Measure

Average Quarterly

Stratum Initial Patient Population Size

"N" Minimum Required

Stratum Sample Size

"n"

? 481 49

171-480 10% of Initial Patient Population size

17-170 17

< 17 No sampling; 100% Initial Patient Population required

Monthly Sampling

For hospitals selecting sample cases for SCIP, a modified sampling procedure is required. Hospitals

selecting sample cases for this set must ensure that each individual strata population and monthly sample size meets the following conditions:

- Select within each of the seven individual measure stratum (e.g., colorectal surgery, hip arthroplasty, etc.) and the 8th SCIP stratum (Table 5.25 in Appendix A).

Monthly Sample Size

Based on Initial Patient Population Size for the SCIP Measure Set

Hospital's Measure

Average Monthly

Stratum Initial Patient Population Size

"N" Minimum Required

Stratum Sample Size

"n"

? 151 16

61-150 10% of Initial Patient Population size

6-60 6

<6 No sampling; 100% Initial Patient Population required

All of the SCIP measures' specific exclusion criteria are used to filter out cases that do not belong in the measure denominator. Using SCIP-Inf-4 as an example, include cases covering all sampled strata, although the measure-specific exclusion criteria would only allow cases in the cardiac surgery stratum to be included in the denominator.

2a.24 Data Source (Check the source(s) for which the measure is specified and tested)

Paper medical record/flow-sheet, Electronic administrative data/claims

2a.25 Data source/data collection instrument (Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.):

Vendor tools or CART (both electronic). CART is available for download free at

<http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138900279093>

2a.26-28 Data source/data collection instrument reference web page URL or attachment: URL

<http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138900279093>

2a.29-31 Data dictionary/code table web page URL or attachment: URL not needed

<http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228754600169>

2a.32-35 Level of Measurement/Analysis (Check the level(s) for which the measure is specified and tested)

Facility/Agency, Population: national, Program: QIO, Can be measured at all levels

2a.36-37 Care Settings (Check the setting(s) for which the measure is specified and tested)

Hospital

2a.38-41 Clinical Services (Healthcare services being measured, check all that apply)

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample (description of data/sample and size): Measure has been in use since 2001 and has been continually collected nationally for the RHQDAPU program since Jan 2007. Feedback from the hospital abstractors and the independent validation team is collected and incorporated. Reports on mismatches between national abstractors and the independent abstraction/validation contractor are reviewed quarterly.

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<p>Revisions to data elements are made accordingly.</p> <p>2b.2 Analytic Method (<i>type of reliability & rationale, method for testing</i>): Analysts review quarterly benchmarks and trends to identify differences in performance scores and investigate the possible causes. If measure specifications (algorithms, data elements) are causing the difference in performance, they are reviewed for possible updates.</p> <p>2b.3 Testing Results (<i>reliability statistics, assessment of adequacy in the context of norms for the test conducted</i>): Specifications are reviewed and updated bi-annually, if issues are identified. Minimal changes have been made to this measure.</p>	
<p>2c. Validity testing</p> <p>2c.1 Data/sample (<i>description of data/sample and size</i>): Validity testing was performed in a 3-state pilot. After analysis, specifications were updated. Because the measure specifications are reviewed and updated bi-annually based on clinician and abstractor feedback, validity is performed on an ongoing basis.</p> <p>2c.2 Analytic Method (<i>type of validity & rationale, method for testing</i>): Measure specification updates are vetted through a Technical Expert Panel, to ensure that the measure is assessing the intended process.</p> <p>2c.3 Testing Results (<i>statistical results, assessment of adequacy in the context of norms for the test conducted</i>): Specifications are reviewed and updated bi-annually, if issues are identified.</p>	<p>2c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2d. Exclusions Justified</p> <p>2d.1 Summary of Evidence supporting exclusion(s): All of the SCIP measures' specific exclusion criteria are used to filter out cases that do not belong in the measure denominator. Patients with infections and those with burns are excluded from this measure as blood glucose may be elevated already. Transplant patients are excluded because of the other immunosuppressive processes that may be in place. Many of the exclusions are applied across multiple topics.</p> <p>2d.2 Citations for Evidence: N/A</p> <p>2d.3 Data/sample (<i>description of data/sample and size</i>): Each specific exclusion is vetted through a Technical Expert Panel unless they are non-clinical exclusions such as age and length of stay crossing reporting quarters. The Technical Expert Panel reviews the exclusions to ensure that the measure assesses the intended process.</p> <p>2d.4 Analytic Method (<i>type analysis & rationale</i>): Analysts review quarterly benchmarks and trends to identify differences in performance scores and investigate the possible causes. If measure exclusions are causing performance variability, they are reviewed for validity and necessity.</p> <p>2d.5 Testing Results (<i>e.g., frequency, variability, sensitivity analyses</i>): Specifications are reviewed and updated bi-annually, if issues are identified.</p>	<p>2d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2e. Risk Adjustment for Outcomes/ Resource Use Measures</p> <p>2e.1 Data/sample (<i>description of data/sample and size</i>): N/A</p> <p>2e.2 Analytic Method (<i>type of risk adjustment, analysis, & rationale</i>):</p> <p>2e.3 Testing Results (<i>risk model performance metrics</i>):</p>	<p>2e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>

<p>2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:</p>	
<p>2f. Identification of Meaningful Differences in Performance</p> <p>2f.1 Data/sample from Testing or Current Use (<i>description of data/sample and size</i>): Each quarter of reported data is evaluated to identify meaningful differences in performance.</p> <p>2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance (<i>type of analysis & rationale</i>): Analysts review quarterly benchmarks and trends to identify differences in performance scores and investigate the possible causes. All specification updates are reviewed if performance variability is identified.</p> <p>2f.3 Provide Measure Scores from Testing or Current Use (<i>description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance</i>): The most recent 5 quarters of data are provided below. Q1-09 Q2-09 Q3-09 Q4-09 Q1-10 91.9 92.3 92.9 92.9 93.4</p>	<p>2f C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>2g. Comparability of Multiple Data Sources/Methods</p> <p>2g.1 Data/sample (<i>description of data/sample and size</i>): At this time, medical records (paper or electronically scanned) are used as data sources. Abstractors review the medical record and collect the data. Data is then transmitted electronically to a clinical data warehouse.</p> <p>2g.2 Analytic Method (<i>type of analysis & rationale</i>):</p> <p>2g.3 Testing Results (<i>e.g., correlation statistics, comparison of rankings</i>):</p>	<p>2g C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2h. Disparities in Care</p> <p>2h.1 If measure is stratified, provide stratified results (<i>scores by stratified categories/cohorts</i>): Measure is not stratified.</p> <p>2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:</p>	<p>2h C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Scientific Acceptability of Measure Properties</i>?</p>	<p>2</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Scientific Acceptability of Measure Properties</i>, met? Rationale:</p>	<p>2 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p style="text-align: center;">3. USABILITY</p>	
<p>Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>3a. Meaningful, Understandable, and Useful Information</p> <p>3a.1 Current Use: In use</p> <p>3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large) (<i>If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly</i></p>	<p>3a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p><u>reported</u>, state the plans to achieve public reporting within 3 years): Measure is used in the RHQDAPU program for CMS.</p> <p>3a.3 If used in other programs/initiatives (If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). <u>If not used for QI</u>, state the plans to achieve use for QI within 3 years): Measure is used in the accreditation process for the Joint Commission.</p> <p>Testing of Interpretability (Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement) 3a.4 Data/sample (description of data/sample and size): Measure has been in use since 2001 and has been continually collected nationally for the RHQDAPU program since Jan 2007. Feedback from the hospital abstractors and the independent validation team is collected and incorporated. Reports on mismatches between national abstractors and the independent abstraction/validation contractor are reviewed quarterly. Revisions to data elements are made accordingly.</p> <p>3a.5 Methods (e.g., focus group, survey, QI project): Nation-wide collection</p> <p>3a.6 Results (qualitative and/or quantitative results and conclusions): Measures are updated bi-annually if abstraction or interpretability issues are identified. Information produced by the measure is meaningful, understandable and useful to the intended audience.</p>	
<p>3b/3c. Relation to other NQF-endorsed measures</p> <p>3b.1 NQF # and Title of similar or related measures:</p>	
<p>(for NQF staff use) Notes on similar/related <u>endorsed</u> or submitted measures:</p>	
<p>3b. Harmonization If this measure is related to measure(s) already <u>endorsed by NQF</u> (e.g., same topic, but different target population/setting/data source <u>or</u> different topic but same target population): 3b.2 Are the measure specifications harmonized? If not, why?</p>	<p>3b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>3c. Distinctive or Additive Value 3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:</p> <p>5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:</p>	<p>3c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Usability?</p>	<p>3</p>
<p>Steering Committee: Overall, to what extent was the criterion, Usability, met? Rationale:</p>	<p>3 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
4. FEASIBILITY	
<p>Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (<u>evaluation criteria</u>)</p>	<p><u>Eval</u> <u>Ratin</u> <u>g</u></p>
<p>4a. Data Generated as a Byproduct of Care Processes</p>	<p>4a C <input type="checkbox"/></p>

<p>4a.1-2 How are the data elements that are needed to compute measure scores generated? Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)</p>	P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
<p>4b. Electronic Sources</p> <p>4b.1 Are all the data elements available electronically? (<i>elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims</i>) No</p> <p>4b.2 If not, specify the near-term path to achieve electronic capture by most providers. Measure will be re-tooled for EHR use in near future, possibly 2011 or 2012.</p>	4b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
<p>4c. Exclusions</p> <p>4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications? No</p> <p>4c.2 If yes, provide justification.</p>	4c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>
<p>4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences</p> <p>4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results. Susceptibility to inaccuracies, errors or unintended consequences have not been identified.</p>	4d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
<p>4e. Data Collection Strategy/Implementation</p> <p>4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues: According to feedback, data collection is not labor-intensive and data is available in the medical record.</p> <p>4e.2 Costs to implement the measure (<i>costs of data collection, fees associated with proprietary measures</i>): Costs to implement the measure have not been assessed by the measure steward.</p> <p>4e.3 Evidence for costs:</p> <p>4e.4 Business case documentation: Several studies have been performed to evaluate costs associated with healthcare-associated infections. No current studies have been performed in relation to this measure.</p>	4e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Feasibility?</p>	4
<p>Steering Committee: Overall, to what extent was the criterion, Feasibility, met? Rationale:</p>	4 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>
RECOMMENDATION	
<p>(for NQF staff use) Check if measure is untested and only eligible for time-limited endorsement.</p>	Time-limited <input type="checkbox"/>
<p>Steering Committee: Do you recommend for endorsement?</p>	Y <input type="checkbox"/>

Comments:	N <input type="checkbox"/> A <input type="checkbox"/>
CONTACT INFORMATION	
Co.1 Measure Steward (Intellectual Property Owner) Co.1 Organization Centers for Medicare & Medicaid Services, 7500 Security Blvd., Baltimore, Maryland, 21244	
Co.2 Point of Contact Kristie, Baus, RN, MS, kristie.baus@cms.hhs.gov, 410-786-8161-	
Measure Developer If different from Measure Steward Co.3 Organization Oklahoma Foundation for Medical Quality, 14000 Quail Springs Parkway, Suite 400, Oklahoma City, Oklahoma, 73134	
Co.4 Point of Contact Kristie, Baus, RN, MS, kristie.baus@cms.hhs.gov, 410-786-8161-	
Co.5 Submitter If different from Measure Steward POC Wanda, Johnson, wjohnson@ofmq.com, 405-840-2891-, Oklahoma Foundation for Medical Quality	
Co.6 Additional organizations that sponsored/participated in measure development The Joint Commission participates in ongoing maintenance of this measure.	
ADDITIONAL INFORMATION	
Workgroup/Expert Panel involved in measure development Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development. The panel members names are available upon request.	
Ad.2 If adapted, provide name of original measure: Ad.3-5 If adapted, provide original specifications URL or attachment	
Measure Developer/Steward Updates and Ongoing Maintenance Ad.6 Year the measure was first released: 2006 Ad.7 Month and Year of most recent revision: 10, 2010 Ad.8 What is your frequency for review/update of this measure? bi-annually Ad.9 When is the next scheduled review/update for this measure? 04, 2011	
Ad.10 Copyright statement/disclaimers: N/A	
Ad.11 -13 Additional Information web page URL or attachment:	
Date of Submission (MM/DD/YY): 10/28/2010	

Appendix A
ICD-9-CM Code Tables

Last Updated: Version 3.2

Index		
Number	Name	Page
Table 1.1	Acute Myocardial Infarction (AMI)	Appendix A-3
Table 1.2	Percutaneous Coronary Intervention (PCI)	Appendix A-3
Table 2.1	Heart Failure (HF)	Appendix A-3
Table 2.2	Left Ventricular Assistive Device (LVAD) and Heart Transplant	Appendix A-4
Table 3.1	Pneumonia (PN)	Appendix A-4
Table 3.2	Septicemia	Appendix A-5
Table 3.3	Respiratory Failure	Appendix A-5
Table 3.4	Cystic Fibrosis	Appendix A-5
Table 4.01	Reserved for Future Use	N/A
Table 4.02	Reserved for Future Use	N/A
Table 4.03	Reserved for Future Use	N/A
Table 4.04	Reserved for Future Use	N/A
Table 4.05	Reserved for Future Use	N/A
Table 4.06	Reserved for Future Use	N/A
Table 4.07	Cesarean Section	Appendix A-6
Table 4.08	Reserved for Future Use	N/A
Table 4.09	Reserved for Future Use	N/A
Table 4.10	Reserved for Future Use	N/A
Table 4.10.1	Reserved for Future Use	N/A
Table 4.11	Reserved for Future Use	N/A
Table 4.12	Reserved for Future Use	N/A
Table 4.13	Reserved for Future Use	N/A
Table 5.01	Coronary Artery Bypass Graft (CABG)	Appendix A-7
Table 5.02	Other Cardiac Surgery	Appendix A-7
Table 5.03	Colon Surgery	Appendix A-8
Table 5.04	Hip Arthroplasty	Appendix A-9
Table 5.05	Knee Arthroplasty	Appendix A-9
Table 5.06	Abdominal Hysterectomy	Appendix A-9
Table 5.07	Vaginal Hysterectomy	Appendix A-9
Table 5.08	Vascular Surgery	Appendix A-10
Table 5.09	Infection	Appendix A-10
Table 5.10	Major Surgery	Appendix A-25
Table 5.11	Cardiac Surgery	Appendix A-34
Table 5.12	Reserved for Future Use	N/A
Table 5.13	Hip Fractures	Appendix A-36
Table 5.14	Burns	Appendix A-37
Table 5.15	Transplant	Appendix A-45
Table 5.16	Urological/Perineal	Appendix A-45
Table 5.17	Intracranial Neurosurgery	Appendix A-56

Index		
Number	Name	Page
Table 5.18	Reserved for Future Use	N/A
Table 5.19	General Surgery	Appendix A-57
Table 5.20	Gynecological Surgery	Appendix A-62
Table 5.21	Urological Surgery	Appendix A-62
Table 5.22	Elective Hip Replacement	Appendix A-63
Table 5.23	Elective Total Knee Replacement	Appendix A-64
Table 5.24	Hip Fracture Surgery	Appendix A-64
Table 5.25	Other Major Surgery for Sampling	Appendix A-64
Table 6.1	Asthma	Appendix A-70
Table 7.01	Mental Disorders	Appendix A-71
Table 7.02	Obstetrics	Appendix A-80
Table 7.03	Venous Thromboembolism (VTE)	Appendix A-99
Table 7.04	Obstetrics - VTE	Appendix A-99
Table 8.1	Ischemic Stroke	Appendix A-100
Table 8.2	Hemorrhagic Stroke	Appendix A-100
Table 12.1	Diabetes	Appendix A-100
Table 12.2	End-Stage Renal Disease	Appendix A-102
Table 12.3	Pregnancy	Appendix A-102
Table 12.4	Asthma	Appendix A-112
Table 12.5	Chronic Obstructive Pulmonary Disease (COPD)	Appendix A-112
Table 12.6	Nephrotic Syndrome	Appendix A-113
Table 12.7	Asplenia	Appendix A-113
Table 12.8	Human Immunodeficiency Virus (HIV)	Appendix A-113
Table 12.9	Influenza	Appendix A-113

Code	Shortened Description
410.00	AMI ANTEROLATERAL, UNSPEC
410.01	AMI ANTEROLATERAL, INIT
410.10	AMI ANTERIOR WALL, UNSPEC
410.11	AMI ANTERIOR WALL, INIT
410.20	AMI INFEROLATERAL, UNSPEC
410.21	AMI INFEROLATERAL, INIT
410.30	AMI INFEROPOST, UNSPEC
410.31	AMI INFEROPOST, INITIAL
410.40	AMI INFERIOR WALL, UNSPEC
410.41	AMI INFERIOR WALL, INIT
410.50	AMI LATERAL NEC, UNSPEC
410.51	AMI LATERAL NEC, INITIAL
410.60	TRUE POST INFARCT, UNSPEC
410.61	TRUE POST INFARCT, INIT
410.70	SUBENDO INFARCT, UNSPEC
410.71	SUBENDO INFARCT, INITIAL
410.80	AMI NEC, UNSPECIFIED
410.81	AMI NEC, INITIAL
410.90	AMI NOS, UNSPECIFIED
410.91	AMI NOS, INITIAL

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Code	Shortened Description
00.66	PTCA OR CORONARY ATHER

Last Updated: Version 3.2

Code	Shortened Description
402.01	MAL HYPERT HRT DIS W HF
402.11	BENIGN HYP HT DIS W HF
402.91	HYP HT DIS NOS W HT FAIL
404.01	MAL HYP HT/KD I-IV W HF
404.03	MAL HYP HT/KD STG V W HF
404.11	BEN HYP HT/KD I-IV W HF
404.13	BEN HYP HT/KD STG V W HF
404.91	HYP HT/KD NOS I-IV W HF
404.93	HYP HT/KD NOS ST V W HF
428.0	CHF NOS
428.1	LEFT HEART FAILURE

Table 2.1 Heart Failure (HF)	
Code	Shortened Description
428.20	SYSTOLIC HRT FAILURE NOS
428.21	AC SYSTOLIC HRT FAILURE
428.22	CHR SYSTOLIC HRT FAILURE
428.23	AC ON CHR SYST HRT FAIL
428.30	DIASTOLC HRT FAILURE NOS
428.31	AC DIASTOLIC HRT FAILURE
428.32	CHR DIASTOLIC HRT FAIL
428.33	AC ON CHR DIAST HRT FAIL
428.40	SYST/DIAST HRT FAIL NOS
428.41	AC SYST/DIASTOL HRT FAIL
428.42	CHR SYST/DIASTL HRT FAIL
428.43	AC/CHR SYST/DIA HRT FAIL
428.9	HEART FAILURE NOS

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Table 2.2 Left Ventricular Assistive Device (LVAD) and Heart Transplant	
Code	Shortened Description
33.6	COMB HEART/LUNG TRANSPLA
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.65	IMP VENT EXT HRT AST SYS
37.66	IMPLANTABLE HRT ASSIST
37.68	PERCUTAN HRT ASSIST SYST

Last Updated: Version 3.2

Table 3.1 Pneumonia (PN)	
Code	Shortened Description
481	PNEUMOCOCCAL PNEUMONIA
482.0	K. PNEUMONIAE PNEUMONIA
482.1	PSEUDOMONAL PNEUMONIA
482.2	H.INFLUENZAE PNEUMONIA
482.30	STREPTOCOCCAL PNEUMN NOS
482.31	PNEUMONIA STRPTOCOCCUS A
482.32	PNEUMONIA STRPTOCOCCUS B
482.39	PNEUMONIA OTH STREP
482.40	STAPHYLOCOCCAL PNEU NOS
482.41	METH SUS PNEUM D/T STAPH
482.42	METH RES PNEU D/T STAPH

Table 3.1 Pneumonia (PN)	
Code	Shortened Description
482.49	STAPH PNEUMONIA NEC
482.82	PNEUMONIA E COLI
482.83	PNEUMO OTH GRM-NEG BACT
482.84	LEGIONNAIRES' DISEASE
482.89	PNEUMONIA OTH SPCF BACT
482.9	BACTERIAL PNEUMONIA NOS
483.0	PNEU MYCPLSM PNEUMONIAE
483.1	PNEUMONIA D/T CHLAMYDIA
483.8	PNEUMON OTH SPEC ORGNSM
485	BRONCHOPNEUMONIA ORG NOS
486	PNEUMONIA, ORGANISM NOS

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Table 3.2 Septicemia	
Code	Shortened Description
038.0	STREPTOCOCCAL SEPTICEMIA
038.10	STAPHYLCOCC SEPTICEM NOS
038.11	METH SUSC STAPH AUR SEPT
038.12	MRSA SEPTICEMIA
038.19	STAPHYLCOCC SEPTICEM NEC
038.2	PNEUMOCOCCAL SEPTICEMIA
038.3	ANAEROBIC SEPTICEMIA
038.40	GRAM-NEG SEPTICEMIA NOS
038.41	H. INFLUENAE SEPTICEMIA
038.42	E COLI SEPTICEMIA
038.43	PSEUDOMONAS SEPTICEMIA
038.44	SERRATIA SEPTICEMIA
038.49	GRAM-NEG SEPTICEMIA NEC
038.8	SEPTICEMIA NEC
038.9	SEPTICEMIA NOS

Last Updated: Version 3.2

Table 3.3 Respiratory Failure	
Code	Shortened Description
518.81	ACUTE RESPIRATRY FAILURE
518.84	ACUTE & CHRONC RESP FAIL

Last Updated: Version 3.2

Table 3.4 Cystic Fibrosis	
Code	Shortened Description
277.00	CYSTIC FIBROSIS W/O ILEUS

Table 3.4 Cystic Fibrosis	
Code	Shortened Description
277.01	CYSTIC FIBROSIS W ILEUS
277.02	CYSTIC FIBROSIS W PUL MAN
277.03	CYSTIC FIBROSIS W GI MAN
277.09	CYSTIC FIBROSIS NEC

Table 4.01 – Reserved for Future Use

Table 4.02 – Reserved for Future Use

Table 4.03 – Reserved for Future Use

Table 4.04 – Reserved for Future Use

Table 4.05 – Reserved for Future Use

Table 4.06 – Reserved for Future use

Last Updated: Version 3.2

Table 4.07 Cesarean Section	
Code	Shortened Description
74.0	CLASSICAL C-SECTION
74.1	LOW CERVICAL C-SECTION
74.2	EXTRAPERITONEAL C-SECT
74.4	CESAREAN SECTION NEC
74.99	CESAREAN SECTION NOS

Table 4.08 – Reserved for Future Use

Table 4.09 – Reserved for Future Use

Table 4.10 – Reserved for Future Use

Table 4.10.1 – Reserved for Future Use

Table 4.11 – Reserved for Future Use

Table 4.12 – Reserved for Future Use

Table 4.13 – Reserved for Future Use

Code	Shortened Description
36.10	AORTOCORONARY BYPASS NOS
36.11	AORTOCOR BYPAS-1 COR ART
36.12	AORTOCOR BYPAS-2 COR ART
36.13	AORTOCOR BYPAS-3 COR ART
36.14	AORTCOR BYPAS-4+ COR ART
36.15	1 INT MAM-COR ART BYPASS
36.16	2 INT MAM-COR ART BYPASS
36.17	ABD-CORON ARTERY BYPASS
36.19	HRT REVAS BYPS ANAS NEC

Code	Shortened Description
35.10	OPEN VALVULOPLASTY NOS
35.11	OPN AORTIC VALVULOPLASTY
35.12	OPN MITRAL VALVULOPLASTY
35.13	OPN PULMON VALVULOPLASTY
35.14	OPN TRICUS VALVULOPLASTY
35.20	REPLACE HEART VALVE NOS
35.21	REPLACE AORT VALV-TISSUE
35.22	REPLACE AORTIC VALVE NEC
35.23	REPLACE MITR VALV-TISSUE
35.24	REPLACE MITRAL VALVE NEC
35.25	REPLACE PULM VALV-TISSUE
35.26	REPLACE PULMON VALVE NEC
35.27	REPLACE TRIC VALV-TISSUE
35.28	REPLACE TRICUSP VALV NEC
35.31	PAPILLARY MUSCLE OPS
35.32	CHORDAE TENDINEAE OPS
35.33	ANNULOPLASTY
35.34	INFUNDIBULECTOMY
35.35	TRABECUL CARNEAE CORD OP
35.39	TISS ADJ TO VALV OPS NEC
35.42	CREATE SEPTAL DEFECT
35.50	PROSTH REP HRT SEPTA NOS
35.51	PROS REP ATRIAL DEF-OPN
35.53	PROS REP VENTRIC DEF-OPN
35.54	PROS REP ENDOCAR CUSHION
35.60	GRFT REPAIR HRT SEPT NOS
35.61	GRAFT REPAIR ATRIAL DEF
35.62	GRAFT REPAIR VENTRIC DEF
35.63	GRFT REP ENDOCAR CUSHION

Table 5.02 Other Cardiac Surgery	
Code	Shortened Description
35.70	HEART SEPTA REPAIR NOS
35.72	VENTR SEPTA DEF REP NEC
35.73	ENDOCAR CUSHION REP NEC
35.81	TOT REPAIR TETRAL FALLOT
35.82	TOTAL REPAIR OF TAPVC
35.83	TOT REP TRUNCUS ARTERIOS
35.84	TOT COR TRANSPOS GRT VES
35.91	INTERAT VEN RETRN TRANSP
35.92	CONDUIT RT VENT-PUL ART
35.93	CONDUIT LEFT VENTR-AORTA
35.94	CONDUIT ARTIUM-PULM ART
35.98	OTHER HEART SEPTA OPS
35.99	OTHER HEART VALVE OPS

Last Updated: Version 3.2

Table 5.03 Colon Surgery	
Code	Shortened Description
17.31	LAP MUL SEG RES LG INTES
17.32	LAPAROSCOPIC CECECTOMY
17.33	LAP RIGHT HEMICOLECTOMY
17.34	LAP RES TRANSVERSE COLON
17.35	LAP LEFT HEMICOLECTOMY
17.36	LAP SIGMOIDECTOMY
17.39	LAP PT EX LRG INTEST NEC
45.00	INTESTINAL INCISION NOS
45.03	LARGE BOWEL INCISION
45.49	DESTRUC LG BOWEL LES NEC
45.50	INTEST SEG ISOLAT NOS
45.71	OPN MUL SEG LG INTES NEC
45.72	OPEN CECECTOMY NEC
45.73	OPN RT HEMICOLECTOMY NEC
45.74	OPN TRANSV COLON RES NEC
45.75	OPN LFT HEMICOLECTMY NEC
45.76	OPEN SIGMOIDECTOMY NEC
45.79	PRT LG INTES EXC NEC/NOS
45.90	INTESTINAL ANASTOM NOS
45.92	SM BOWEL-RECT STUMP ANAS
45.93	SMALL-TO-LARGE BOWEL NEC
45.94	LG-TO-LG BOWEL ANASTOM
45.95	ANAL ANASTOMOSIS
46.03	LG BOWEL EXTERIORIZATION
46.04	RESECT EXT SEG LG BOWEL
46.13	PERMANENT COLOSTOMY
46.75	SUTURE LG BOWEL LACERAT

Table 5.03 Colon Surgery	
Code	Shortened Description
46.76	CLOSE LG BOWEL FISTULA
46.91	MYOTOMY OF SIGMOID COLON
46.92	MYOTOMY OF COLON NEC
46.94	REVISE LG BOWEL ANASTOM
48.50	ABDPERNEAL RES RECTM NOS
48.61	TRANS SAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC

Last Updated: Version 3.2

Table 5.04 Hip Arthroplasty	
Code	Shortened Description
81.51	TOTAL HIP REPLACEMENT
81.52	PARTIAL HIP REPLACEMENT

Last Updated: Version 3.2

Table 5.05 Knee Arthroplasty	
Code	Shortened Description
81.54	TOTAL KNEE REPLACEMENT

Last Updated: Version 3.2

Table 5.06 Abdominal Hysterectomy	
Code	Shortened Description
68.31	LAP SCERVIC HYSTERECTOMY
68.49	TOTAL ABD HYST NEC/NOS
68.69	RADICAL ABD HYST NEC/NOS

Last Updated: Version 3.2

Table 5.07 Vaginal Hysterectomy	
Code	Shortened Description
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.79	RADICAL VAG HYST NEC/NOS

Code	Shortened Description
38.14	ENDARTERECTOMY OF AORTA
38.16	ABDOMINAL ENDARTERECTOMY
38.18	LOWER LIMB ENDARTERECT
38.34	AORTA RESECTION & ANAST
38.36	ABD VESSEL RESECT/ANAST
38.37	ABD VEIN RESECT & ANAST
38.44	RESECT ABDOM AORTA W REPL
38.48	LEG ARTERY RESEC W REPLA
38.49	LEG VEIN RESECT W REPLAC
38.64	EXCISION OF AORTA
39.25	AORTA-ILIAC-FEMOR BYPASS
39.26	INTRA-ABDOMIN SHUNT NEC
39.29	VASC SHUNT & BYPASS NEC

Last Updated: Version 3.2

Code	Shortened Description
001.0	CHOLERA D/T VIB CHOLERAE
001.1	CHOLERA D/T VIB EL TOR
001.9	CHOLERA NOS
002.0	TYPHOID FEVER
002.1	PARATYPHOID FEVER A
002.2	PARATYPHOID FEVER B
002.3	PARATYPHOID FEVER C
002.9	PARATYPHOID FEVER NOS
003.0	SALMONELLA ENTERITIS
003.1	SALMONELLA SEPTICEMIA
003.20	LOCAL SALMONELLA INF NOS
003.21	SALMONELLA MENINGITIS
003.22	SALMONELLA PNEUMONIA
003.23	SALMONELLA ARTHRITIS
003.24	SALMONELLA OSTEOMYELITIS
003.29	LOCAL SALMONELLA INF NEC
003.8	SALMONELLA INFECTION NEC
003.9	SALMONELLA INFECTION NOS
004.0	SHIGELLA DYSENTERIAE
004.1	SHIGELLA FLEXNERI
004.2	SHIGELLA BOYDII
004.3	SHIGELLA SONNEI
004.8	SHIGELLA INFECTION NEC
004.9	SHIGELLOSIS NOS
006.0	AC AMEBIASIS W/O ABSCESS

Table 5.09 Infection

Code	Shortened Description
006.1	CHR AMEBIASIS W/O ABSCESES
006.2	AMEBIC NONDYSSENT COLITIS
006.3	AMEBIC LIVER ABSCESS
006.4	AMEBIC LUNG ABSCESS
006.5	AMEBIC BRAIN ABSCESS
006.6	AMEBIC SKIN ULCERATION
006.8	AMEBIC INFECTION NEC
006.9	AMEBIASIS NOS
007.1	GIARDIASIS
008.00	INTEST INFEC E COLI NOS
008.01	INT INF E COLI ENTRPATH
008.02	INT INF E COLI ENTRTOXGN
008.03	INT INF E COLI ENTRNVSV
008.04	INT INF E COLI ENTRHMRG
008.09	INT INF E COLI SPCF NEC
008.1	ARIZONA ENTERITIS
008.2	AEROBACTER ENTERITIS
008.3	PROTEUS ENTERITIS
008.41	STAPHYLOCOCC ENTERITIS
008.42	PSEUDOMONAS ENTERITIS
008.43	INT INFEC CAMPYLOBACTER
008.44	INT INF YRSNIA ENTRCLTCA
008.45	INT INF CLSTRDIUM DFCILE
008.46	INTES INFEC OTH ANEROBES
008.47	INT INF OTH GRM NEG BCTR
008.49	BACTERIAL ENTERITIS NEC
008.5	BACTERIAL ENTERITIS NOS
008.8	VIRAL ENTERITIS NOS
009.0	INFECTIOUS ENTERITIS NOS
009.1	ENTERITIS OF INFECT ORIG
009.2	INFECTIOUS DIARRHEA NOS
009.3	DIARRHEA OF INFECT ORIG
020.0	BUBONIC PLAGUE
020.1	CELLULOCUTANEOUS PLAGUE
020.2	SEPTICEMIC PLAGUE
020.3	PRIMARY PNEUMONIC PLAGUE
020.4	SECONDARY PNEUMON PLAGUE
020.5	PNEUMONIC PLAGUE NOS
020.8	OTHER TYPES OF PLAGUE
020.9	PLAGUE NOS
021.0	ULCEROGLANDUL TULAREMIA
021.1	ENTERIC TULAREMIA
021.2	PULMONARY TULAREMIA
021.3	OCULOGLANDULAR TULAREMIA
021.8	TULAREMIA NEC

Table 5.09 Infection

Code	Shortened Description
021.9	TULAREMIA NOS
022.0	CUTANEOUS ANTHRAX
022.1	PULMONARY ANTHRAX
022.2	GASTROINTESTINAL ANTHRAX
022.3	ANTHRAX SEPTICEMIA
022.8	OTHER ANTHRAX MANIFEST
022.9	ANTHRAX NOS
023.0	BRUCELLA MELITENSIS
023.1	BRUCELLA ABORTUS
023.2	BRUCELLA SUIS
023.3	BRUCELLA CANIS
023.8	BRUCELLOSIS NEC
023.9	BRUCELLOSIS NOS
024	GLANDERS
025	MELIOIDOSIS
026.0	SPIRILLARY FEVER
026.1	STREPTOBACILLARY FEVER
026.9	RAT-BITE FEVER NOS
027.0	LISTERIOSIS
027.1	ERYSIPELOTHRIX INFECTION
027.2	PASTEURELLOSIS
027.8	ZOONOTIC BACT DIS NEC
027.9	ZOONOTIC BACT DIS NOS
030.0	LEPROMATOUS LEPROSY
030.1	TUBERCULOID LEPROSY
030.2	INDETERMINATE LEPROSY
030.3	BORDERLINE LEPROSY
030.8	LEPROSY NEC
030.9	LEPROSY NOS
031.0	PULMONARY MYCOBACTERIA
031.1	CUTANEOUS MYCOBACTERIA
031.2	DMAC BACTEREMIA
031.8	MYCOBACTERIAL DIS NEC
031.9	MYCOBACTERIAL DIS NOS
032.0	FAUCIAL DIPHTHERIA
032.1	NASOPHARYNX DIPHTHERIA
032.2	ANT NASAL DIPHTHERIA
032.3	LARYNGEAL DIPHTHERIA
032.81	CONJUNCTIVAL DIPHTHERIA
032.82	DIPHTHERITIC MYOCARDITIS
032.83	DIPHTHERITIC PERITONITIS
032.84	DIPHTHERITIC CYSTITIS
032.85	CUTANEOUS DIPHTHERIA
032.89	DIPHTHERIA NEC
032.9	DIPHTHERIA NOS

Table 5.09 Infection	
Code	Shortened Description
033.0	BORDETELLA PERTUSSIS
033.1	BORDETELLA PARAPERTUSSIS
033.8	WHOOPING COUGH NEC
033.9	WHOOPING COUGH NOS
034.0	STREP SORE THROAT
034.1	SCARLET FEVER
035	ERYSIPELAS
036.0	MENINGOCOCCAL MENINGITIS
036.1	MENINGOCOCC ENCEPHALITIS
036.2	MENINGOCOCCEMIA
036.3	MENINGOCOCC ADRENAL SYND
036.40	MENINGOCOCC CARDITIS NOS
036.41	MENINGOCOCC PERICARDITIS
036.42	MENINGOCOCC ENDOCARDITIS
036.43	MENINGOCOCC MYOCARDITIS
036.81	MENINGOCOCC OPTIC NEURIT
036.82	MENINGOCOCC ARTHROPATHY
036.89	MENINGOCOCCAL INFECT NEC
036.9	MENINGOCOCCAL INFECT NOS
037	TETANUS
038.0	STREPTOCOCCAL SEPTICEMIA
038.10	STAPHYLOCOCC SEPTICEM NOS
038.11	METH SUSC STAPH AUR SEPT
038.12	MRSA SEPTICEMIA
038.19	STAPHYLOCOCC SEPTICEM NEC
038.2	PNEUMOCOCCAL SEPTICEMIA
038.3	ANAEROBIC SEPTICEMIA
038.40	GRAM-NEG SEPTICEMIA NOS
038.41	H. INFLUENAE SEPTICEMIA
038.42	E COLI SEPTICEMIA
038.43	PSEUDOMONAS SEPTICEMIA
038.44	SERRATIA SEPTICEMIA
038.49	GRAM-NEG SEPTICEMIA NEC
038.8	SEPTICEMIA NEC
038.9	SEPTICEMIA NOS
039.0	CUTANEOUS ACTINOMYCOSIS
039.1	PULMONARY ACTINOMYCOSIS
039.2	ABDOMINAL ACTINOMYCOSIS
039.3	CERVICOFAC ACTINOMYCOSIS
039.4	MADURA FOOT
039.8	ACTINOMYCOSIS NEC
039.9	ACTINOMYCOSIS NOS
040.0	GAS GANGRENE
040.1	RHINOSCLEROMA
040.2	WHIPPLE'S DISEASE

Table 5.09 Infection

Code	Shortened Description
040.3	NECROBACILLOSIS
040.81	TROPICAL PYOMYOSITIS
040.82	TOXIC SHOCK SYNDROME
040.89	BACTERIAL DISEASES NEC
041.00	STREPTOCOCCUS UNSPECF
041.01	STREPTOCOCCUS GROUP A
041.02	STREPTOCOCCUS GROUP B
041.03	STREPTOCOCCUS GROUP C
041.04	ENTEROCOCCUS GROUP D
041.05	STREPTOCOCCUS GROUP G
041.09	OTHER STREPTOCOCCUS
041.10	STAPHYLOCOCCUS UNSPCFIED
041.11	MTH SUS STPH AUR ELS/NOS
041.12	MRSA ELSEWHERE/NOS
041.19	OTHER STAPHYLOCOCCUS
041.2	PNEUMOCOCCUS INFECT NOS
041.3	KLEBSIELLA PNEUMONIAE
041.4	E. COLI INFECT NOS
041.5	H. INFLUENZAE INFECT NOS
041.6	PROTEUS INFECTION NOS
041.7	PSEUDOMONAS INFECT NOS
041.81	MYCOPLASMA
041.82	BACTEROIDES FRAGILIS
041.83	CLOSTRIDIUM PERFRINGENS
041.84	OTHER ANAEROBES
041.85	OTH GRAM NEGATV BACTERIA
041.86	HELICOBACTER PYLORI
041.89	OTH SPECF BACTERIA
041.9	BACTERIAL INFECTION NOS
051.2	CONTAGIOUS PUSTULAR DERM
073.0	ORNITHOSIS PNEUMONIA
073.7	ORNITHOSIS COMPLICAT NEC
073.8	ORNITHOSIS COMPLICAT NOS
073.9	ORNITHOSIS NOS
076.0	TRACHOMA, INITIAL STAGE
076.1	TRACHOMA, ACTIVE STAGE
076.9	TRACHOMA NOS
078.2	SWEATING FEVER
078.3	CAT-SCRATCH DISEASE
078.4	FOOT & MOUTH DISEASE
078.6	HEM NEPHROSONEPHRITIS
078.88	OTH SPEC DIS CHLAMYDIAE
079.88	OTH SPCF CHLAMYDIAL INFC
079.98	CHLAMYDIAL INFECTION NOS
082.40	EHRlichiosis NOS

Table 5.09 Infection

Code	Shortened Description
082.41	EHRlichiosis chafeensis
082.49	EHRlichiosis NEC
082.8	TICK-BORNE Ricketts NEC
082.9	TICK-BORNE Ricketts NOS
083.2	Rickettsialpox
083.8	Rickettsioses NEC
083.9	Rickettsiosis NOS
088.0	Bartonellosis
088.81	Lyme disease
090.0	Early cong syph symptom
090.1	Early congen syph latent
090.2	Early congen syph NOS
090.3	Syphilitic keratitis
090.40	Juvenile neurosyph NOS
090.41	Congen syph encephalitis
090.42	Congen syph meningitis
090.49	Juvenile neurosyph NEC
090.5	Late congen syph symptom
090.6	Late congen syph latent
090.7	Late congen syph NOS
090.9	Congenital syphilis NOS
091.0	Primary genital syphilis
091.1	Primary anal syphilis
091.2	Primary syphilis NEC
091.3	Secondary syph skin
091.4	Syphilitic adenopathy
091.50	Syphilitic uveitis NOS
091.51	Syphilitic chorioretinitis
091.52	Syphilitic iridocyclitis
091.61	Syphilitic periostitis
091.62	Syphilitic hepatitis
091.69	Second syph viscera NEC
091.7	Second syphilis relapse
091.81	Acute syphil meningitis
091.82	Syphilitic alopecia
091.89	Secondary syphilis NEC
091.9	Secondary syphilis NOS
092.0	Early syph latent relaps
092.9	Early syphil latent NOS
093.0	Aortic aneurysm, syphil
093.1	Syphilitic aortitis
093.20	Syphil endocarditis NOS
093.21	Syphilitic mitral valve
093.22	Syphilitic aortic valve
093.23	Syphil tricuspid valve

Table 5.09 Infection	
Code	Shortened Description
093.24	SYPHIL PULMONARY VALVE
093.81	SYPHILITIC PERICARDITIS
093.82	SYPHILITIC MYOCARDITIS
093.89	CARDIOVASCULAR SYPH NEC
093.9	CARDIOVASCULAR SYPH NOS
094.0	TABES DORSALIS
094.1	GENERAL PARESIS
094.2	SYPHILITIC MENINGITIS
094.3	ASYMPTOMAT NEUROSYPHILIS
094.81	SYPHILITIC ENCEPHALITIS
094.82	SYPHILITIC PARKINSONISM
094.83	SYPH DISSEM RETINITIS
094.84	SYPHILITIC OPTIC ATROPHY
094.85	SYPH RETROBULB NEURITIS
094.86	SYPHIL ACOUSTIC NEURITIS
094.87	SYPH RUPT CEREB ANEURYSM
094.89	NEUROSYPHILIS NEC
094.9	NEUROSYPHILIS NOS
095.0	SYPHILITIC EPISCLERITIS
095.1	SYPHILIS OF LUNG
095.2	SYPHILITIC PERITONITIS
095.3	SYPHILIS OF LIVER
095.4	SYPHILIS OF KIDNEY
095.5	SYPHILIS OF BONE
095.6	SYPHILIS OF MUSCLE
095.7	SYPHILIS OF TENDON/BURSA
095.8	LATE SYMPT SYPHILIS NEC
095.9	LATE SYMPT SYPHILIS NOS
096	LATE SYPHILIS LATENT
097.0	LATE SYPHILIS NOS
097.1	LATENT SYPHILIS NOS
097.9	SYPHILIS NOS
098.0	ACUTE GC INFECT LOWER GU
098.10	GC (ACUTE) UPPER GU NOS
098.11	GC CYSTITIS (ACUTE)
098.12	GC PROSTATITIS (ACUTE)
098.13	GC ORCHITIS (ACUTE)
098.14	GC SEM VESICULIT (ACUTE)
098.15	GC CERVICITIS (ACUTE)
098.16	GC ENDOMETRITIS (ACUTE)
098.17	ACUTE GC SALPINGITIS
098.19	GC (ACUTE) UPPER GU NEC
098.2	CHR GC INFECT LOWER GU
098.30	CHR GC UPPER GU NOS
098.31	GC CYSTITIS, CHRONIC

Table 5.09 Infection	
Code	Shortened Description
098.32	GC PROSTATITIS, CHRONIC
098.33	GC ORCHITIS, CHRONIC
098.34	GC SEM VESICULITIS, CHR
098.35	GC CERVICITIS, CHRONIC
098.36	GC ENDOMETRITIS, CHRONIC
098.37	GC SALPINGITIS (CHRONIC)
098.39	CHR GC UPPER GU NEC
098.40	GONOCOCCAL CONJUNCTIVIT
098.41	GONOCOCCAL IRIDOCYCLITIS
098.42	GONOCOCCAL ENDOPHTHALMIA
098.43	GONOCOCCAL KERATITIS
098.49	GONOCOCCAL EYE NEC
098.50	GONOCOCCAL ARTHRITIS
098.51	GONOCOCCAL SYNOVITIS
098.52	GONOCOCCAL BURSITIS
098.53	GONOCOCCAL SPONDYLITIS
098.59	GC INFECT JOINT NEC
098.6	GONOCOCCAL INFEC PHARYNX
098.7	GC INFECT ANUS & RECTUM
098.81	GONOCOCCAL KERATOSIS
098.82	GONOCOCCAL MENINGITIS
098.83	GONOCOCCAL PERICARDITIS
098.84	GONOCOCCAL ENDOCARDITIS
098.85	GONOCOCCAL HEART DIS NEC
098.86	GONOCOCCAL PERITONITIS
098.89	GONOCOCCAL INF SITE NEC
099.0	CHANCROID
099.1	LYMPHOGRANULOMA VENEREUM
099.2	GRANULOMA INGUINALE
099.3	REITER'S DISEASE
099.40	UNSPCF NONGNCCCL URETHRTS
099.41	CHLMYD TRACHOMATIS URETH
099.49	NONGC URTH OTH SPF ORGSM
099.50	OTH VD CHLM TRCH UNSP ST
099.51	OTH VD CHLM TRCH PHARYNX
099.52	OTH VD CHLM TRCH ANS RCT
099.53	OTH VD CHLM TRCH LOWR GU
099.54	OTH VD CHLM TRCH OTH GU
099.55	OT VD CHLM TRCH UNSPF GU
099.56	OT VD CHLM TRCH PRTONEUM
099.59	OTH VD CHLM TRCH SPCF ST
099.8	VENEREAL DISEASE NEC
099.9	VENEREAL DISEASE NOS
100.0	LEPTOSPIROS ICTEROHEM
100.81	LEPTOSPIRAL MENINGITIS

Table 5.09 Infection	
Code	Shortened Description
100.89	LEPTOSPIRAL INFECT NEC
100.9	LEPTOSPIROSIS NOS
101	VINCENT'S ANGINA
102.0	INITIAL LESIONS YAWS
102.1	MULTIPLE PAPILLOMATA
102.2	EARLY SKIN YAWS NEC
102.3	HYPERKERATOSIS OF YAWS
102.4	GUMMATA AND ULCERS, YAWS
102.5	GANGOSA
102.6	YAWS OF BONE & JOINT
102.7	YAWS MANIFESTATIONS NEC
102.8	LATENT YAWS
102.9	YAWS NOS
103.0	PINTA PRIMARY LESIONS
103.1	PINTA INTERMED LESIONS
103.2	PINTA LATE LESIONS
103.3	PINTA MIXED LESIONS
103.9	PINTA NOS
104.0	NONVENEREAL ENDEMIC SYPH
104.8	SPIROCHETAL INFECT NEC
104.9	SPIROCHETAL INFECT NOS
130.0	TOXOPLASM MENINGOENCEPH
130.1	TOXOPLASM CONJUNCTIVITIS
130.2	TOXOPLASM CHORIORETINIT
130.3	TOXOPLASMA MYOCARDITIS
130.4	TOXOPLASMA PNEUMONITIS
130.5	TOXOPLASMA HEPATITIS
130.7	TOXOPLASMOSIS SITE NEC
130.8	MULTISYSTEM TOXOPLASMOS
131.00	UROGENITAL TRICHOMON NOS
131.01	TRICHOMONAL VAGINITIS
131.02	TRICHOMONAL URETHRITIS
131.03	TRICHOMONAL PROSTATITIS
131.09	UROGENITAL TRICHOMON NEC
131.8	TRICHOMONIASIS NEC
131.9	TRICHOMONIASIS NOS
320.0	HEMOPHILUS MENINGITIS
320.1	PNEUMOCOCCAL MENINGITIS
320.2	STREPTOCOCCAL MENINGITIS
320.3	STAPHYLOCOCC MENINGITIS
320.7	MENING IN OTH BACT DIS
320.81	ANAEROBIC MENINGITIS
320.82	MNINGTS GRAM-NEG BCT NEC
320.89	MENINGITIS OTH SPCF BACT
320.9	BACTERIAL MENINGITIS NOS

Table 5.09 Infection	
Code	Shortened Description
322.9	MENINGITIS NOS
323.1	RICKETTSIAL ENCEPHALITIS
324.0	INTRACRANIAL ABSCESS
324.1	INTRASPINAL ABSCESS
324.9	CNS ABSCESS NOS
380.10	INFECTION OTITIS EXTERNA NOS
380.11	ACUTE INFECTION OF PINNA
380.12	ACUTE SWIMMERS' EAR
380.13	ACUTE INFECTION EXTERNAL EAR NEC
380.14	MALIGNANT OTITIS EXTERNA
380.15	CHRONIC MYCOBACTERIAL OTITIS EXTERNA
380.16	CHRONIC INFECTION OTITIS EXTERNA NEC
380.21	CHOLESTEATOMA EXTERNAL EAR
380.22	ACUTE OTITIS EXTERNA NEC
380.23	CHRONIC OTITIS EXTERNA NEC
382.00	ACUTE SUPPURATIVE OTITIS MEDIA NOS
382.01	ACUTE SUPPURATIVE OTITIS MEDIA WITH DRUM RUPTURE
382.02	ACUTE SUPPURATIVE OTITIS MEDIA IN OTHER DISORDERS
382.1	CHRONIC TUBOTYMPANIC SUPPURATIVE OTITIS MEDIA
382.2	CHRONIC ATTICOANTRAL SUPPURATIVE OTITIS MEDIA
421.0	ACUTE/SUBACUTE BACTERIAL ENDOCARDITIS
421.1	ACUTE ENDOCARDITIS IN OTHER DISORDERS
421.9	ACUTE/SUBACUTE ENDOCARDITIS NOS
422.0	ACUTE MYOCARDITIS IN OTHER DISORDERS
422.90	ACUTE MYOCARDITIS NOS
422.91	IDIOPATHIC MYOCARDITIS
422.92	SEPTIC MYOCARDITIS
422.93	TOXIC MYOCARDITIS
422.99	ACUTE MYOCARDITIS NEC
462	ACUTE PHARYNGITIS
463	ACUTE TONSILLITIS
464.00	ACUTE LARYNGITIS WITHOUT OBSTRUCTION
464.01	ACUTE LARYNGITIS WITH OBSTRUCTION
464.10	ACUTE TRACHEITIS WITHOUT OBSTRUCTION
464.11	ACUTE TRACHEITIS WITH OBSTRUCTION
464.20	ACUTE LARYNGOTRACHEITIS WITHOUT OBSTRUCTION
464.21	ACUTE LARYNGOTRACHEITIS WITH OBSTRUCTION
464.30	ACUTE EPIGLOTTITIS WITHOUT OBSTRUCTION
464.31	ACUTE EPIGLOTTITIS WITH OBSTRUCTION
464.50	SUPRAGLOTTITIS WITHOUT OBSTRUCTION NOS
464.51	SUPRAGLOTTITIS WITH OBSTRUCTION NOS
475	PERITONSILLARY ABSCESS
476.0	CHRONIC LARYNGITIS
476.1	CHRONIC LARYNGOTRACHEITIS
481	PNEUMOCOCCAL PNEUMONIA

Table 5.09 Infection	
Code	Shortened Description
482.0	K. PNEUMONIAE PNEUMONIA
482.1	PSEUDOMONAL PNEUMONIA
482.2	H.INFLUENZAE PNEUMONIA
482.30	STREPTOCOCCAL PNEUMN NOS
482.31	PNEUMONIA STRPTOCOCCUS A
482.32	PNEUMONIA STRPTOCOCCUS B
482.39	PNEUMONIA OTH STREP
482.40	STAPHYLOCOCCAL PNEU NOS
482.41	METH SUS PNEUM D/T STAPH
482.42	METH RES PNEU D/T STAPH
482.49	STAPH PNEUMONIA NEC
482.81	PNEUMONIA ANAEROBES
482.82	PNEUMONIA E COLI
482.83	PNEUMO OTH GRM-NEG BACT
482.84	LEGIONNAIRES' DISEASE
482.89	PNEUMONIA OTH SPCF BACT
482.9	BACTERIAL PNEUMONIA NOS
483.0	PNEU MYCPLSM PNEUMONIAE
483.1	PNEUMONIA D/T CHLAMYDIA
483.8	PNEUMON OTH SPEC ORGNSM
484.1	PNEUM W CYTOMEG INCL DIS
484.3	PNEUMONIA IN WHOOP COUGH
484.5	PNEUMONIA IN ANTHRAX
484.6	PNEUM IN ASPERGILLOSIS
484.7	PNEUM IN OTH SYS MYCOSES
484.8	PNEUM IN INFECT DIS NEC
485	BRONCHOPNEUMONIA ORG NOS
486	PNEUMONIA, ORGANISM NOS
487.0	INFLUENZA WITH PNEUMONIA
487.1	FLU W RESP MANIFEST NEC
487.8	FLU W MANIFESTATION NEC
490	BRONCHITIS NOS
491.0	SIMPLE CHR BRONCHITIS
491.1	MUCOPURUL CHR BRONCHITIS
491.20	OBST CHR BRONC W/O EXAC
491.21	OBS CHR BRONC W(AC) EXAC
491.22	OBS CHR BRONC W AC BRONC
491.8	CHRONIC BRONCHITIS NEC
491.9	CHRONIC BRONCHITIS NOS
510.0	EMPHYEMA WITH FISTULA
510.9	EMPHYEMA W/O FISTULA
513.0	ABSCESS OF LUNG
513.1	ABSCESS OF MEDIASTINUM
540.0	AC APPEND W PERITONITIS
540.1	ABSCESS OF APPENDIX

Table 5.09 Infection	
Code	Shortened Description
540.9	ACUTE APPENDICITIS NOS
541	APPENDICITIS NOS
542	OTHER APPENDICITIS
562.01	DVRTCLI SML INT W/O HMRG
562.11	DVRTCLI COLON W/O HMRHG
562.13	DVRTCLI COLON W HMRHG
566	ANAL & RECTAL ABSCESS
567.21	PERITONITIS (ACUTE) GEN
567.22	PERITONEAL ABSCESS
567.23	SPONTAN BACT PERITONITIS
567.29	SUPPURAT PERITONITIS NEC
567.31	PSOAS MUSCLE ABSCESS
567.38	RETROPERITON ABSCESS NEC
567.39	RETROPERITON INFECT NEC
567.81	CHOLEPERITONITIS
567.82	SCLEROSING MESENTERITIS
567.89	PERITONITIS NEC
567.9	PERITONITIS NOS
569.5	INTESTINAL ABSCESS
569.61	COLOSTY/ENTEROST INFECTN
575.0	ACUTE CHOLECYSTITIS
590.00	CHR PYELONEPHRITIS NOS
590.01	CHR PYELONEPH W MED NECR
590.10	AC PYELONEPHRITIS NOS
590.11	AC PYELONEPHR W MED NECR
590.2	RENAL/PERIRENAL ABSCESS
590.3	PYELOURETERITIS CYSTICA
590.80	PYELONEPHRITIS NOS
590.81	PYELONEPHRIT IN OTH DIS
590.9	INFECTION OF KIDNEY NOS
595.0	ACUTE CYSTITIS
599.0	URIN TRACT INFECTION NOS
601.0	ACUTE PROSTATITIS
601.1	CHRONIC PROSTATITIS
601.2	ABSCESS OF PROSTATE
601.3	PROSTATOCYSTITIS
601.4	PROSTATITIS IN OTH DIS
601.8	PROSTATIC INFLAM DIS NEC
601.9	PROSTATITIS NOS
614.0	AC SALPINGO-OOPHORITIS
614.1	CHR SALPINGO-OOPHORITIS
614.2	SALPINGO-OOPHORITIS NOS
614.3	ACUTE PARAMETRITIS
614.4	CHRONIC PARAMETRITIS
614.5	AC PELV PERITONITIS-FEM

Table 5.09 Infection

Code	Shortened Description
614.7	CHR PELV PERITON NEC-FEM
616.2	BARTHOLIN'S GLAND CYST
616.3	BARTHOLIN'S GLND ABSCESS
616.4	ABSCESS OF VULVA NEC
639.0	POSTABORTION GU INFECT
646.60	GU INFECT IN PREG- UNSPEC
646.61	GU INFECTION-DELIVERED
646.62	GU INFECTION-DELIV W P/P
646.63	GU INFECTION-ANTEPARTUM
646.64	GU INFECTION-POSTPARTUM
670.00	MAJ PUERP INF NOS-UNSP
670.02	MAJ PUER INF NOS-DEL P/P
670.04	MAJOR PUERP INF NOS-P/P
674.30	OB SURG COMPL NEC-UNSPEC
674.32	OB SURG COMPL-DEL W P/P
674.34	OB SURG COMP NEC- POSTPAR
680.0	CARBUNCLE OF FACE
680.1	CARBUNCLE OF NECK
680.2	CARBUNCLE OF TRUNK
680.3	CARBUNCLE OF ARM
680.4	CARBUNCLE OF HAND
680.5	CARBUNCLE OF BUTTOCK
680.6	CARBUNCLE OF LEG
680.7	CARBUNCLE OF FOOT
680.8	CARBUNCLE, SITE NEC
680.9	CARBUNCLE NOS
681.00	CELLULITIS, FINGER NOS
681.01	FELON
681.02	ONYCHIA OF FINGER
681.10	CELLULITIS, TOE NOS
681.11	ONYCHIA OF TOE
681.9	CELLULITIS OF DIGIT NOS
682.0	CELLULITIS OF FACE
682.1	CELLULITIS OF NECK
682.2	CELLULITIS OF TRUNK
682.3	CELLULITIS OF ARM
682.4	CELLULITIS OF HAND
682.5	CELLULITIS OF BUTTOCK
682.6	CELLULITIS OF LEG
682.7	CELLULITIS OF FOOT
682.8	CELLULITIS, SITE NEC
682.9	CELLULITIS NOS
683	ACUTE LYMPHADENITIS
684	IMPETIGO
685.0	PILONIDAL CYST W ABSCESS

Table 5.09 Infection	
Code	Shortened Description
685.1	PILONIDAL CYST W/O ABSC
686.00	PYODERMA NOS
686.01	PYODERMA GANGRENOSUM
686.09	PYODERMA NEC
686.1	PYOGENIC GRANULOMA
686.8	LOCAL SKIN INFECTION NEC
686.9	LOCAL SKIN INFECTION NOS
711.90	INF ARTHRITIS NOS-UNSPEC
711.91	INF ARTHRITIS NOS-SHLDER
711.92	INF ARTHRITIS NOS-UP/ARM
711.93	INF ARTHRIT NOS-FOREARM
711.94	INF ARTHRIT NOS-HAND
711.95	INF ARTHRIT NOS-PELVIS
711.96	INF ARTHRIT NOS-L/LEG
711.97	INF ARTHRIT NOS-ANKLE
711.98	INF ARTHRIT NOS-OTH SITE
711.99	INF ARTHRITIS NOS-MULT
730.00	AC OSTEOMYELITIS-UNSPEC
730.01	AC OSTEOMYELITIS-SHLDER
730.02	AC OSTEOMYELITIS-UP/ARM
730.03	AC OSTEOMYELITIS-FOREARM
730.04	AC OSTEOMYELITIS-HAND
730.05	AC OSTEOMYELITIS-PELVIS
730.06	AC OSTEOMYELITIS-L/LEG
730.07	AC OSTEOMYELITIS-ANKLE
730.08	AC OSTEOMYELITIS NEC
730.09	AC OSTEOMYELITIS-MULT
730.10	CHR OSTEOMYELITIS-UNSP
730.11	CHR OSTEOMYELIT-SHLDER
730.12	CHR OSTEOMYELIT-UP/ARM
730.13	CHR OSTEOMYELIT-FOREARM
730.14	CHR OSTEOMYELIT-HAND
730.15	CHR OSTEOMYELIT-PELVIS
730.16	CHR OSTEOMYELIT-L/LEG
730.17	CHR OSTEOMYELIT-ANKLE
730.18	CHR OSTEOMYELIT NEC
730.19	CHR OSTEOMYELIT-MULT
730.20	OSTEOMYELITIS NOS-UNSPEC
730.21	OSTEOMYELITIS NOS-SHLDER
730.22	OSTEOMYELITIS NOS-UP/ARM
730.23	OSTEOMYELIT NOS-FOREARM
730.24	OSTEOMYELITIS NOS-HAND
730.25	OSTEOMYELITIS NOS-PELVIS
730.26	OSTEOMYELITIS NOS-L/LEG
730.27	OSTEOMYELITIS NOS-ANKLE

Table 5.09 Infection	
Code	Shortened Description
730.28	OSTEOMYELIT NOS-OTH SITE
730.29	OSTEOMYELITIS NOS-MULT
730.30	PERIOSTITIS-UNSPEC
730.31	PERIOSTITIS-SHLDER
730.32	PERIOSTITIS-UP/ARM
730.33	PERIOSTITIS-FOREARM
730.34	PERIOSTITIS-HAND
730.35	PERIOSTITIS-PELVIS
730.70	POLIO OSTEOPATHY-UNSPEC
730.71	POLIO OSTEOPATHY-SHLDER
730.72	POLIO OSTEOPATHY-UP/ARM
730.73	POLIO OSTEOPATHY-FOREARM
730.74	POLIO OSTEOPATHY-HAND
730.75	POLIO OSTEOPATHY-PELVIS
730.76	POLIO OSTEOPATHY-L/LEG
730.77	POLIO OSTEOPATHY-ANKLE
730.78	POLIO OSTEOPATHY NEC
730.79	POLIO OSTEOPATHY-MULT
730.80	BONE INFECT NEC-UNSPEC
730.81	BONE INFECT NEC-SHLDER
730.82	BONE INFECT NEC-UP/ARM
730.83	BONE INFECT NEC-FOREARM
730.84	BONE INFECT NEC-HAND
730.85	BONE INFECT NEC-PELVIS
730.86	BONE INFECT NEC-L/LEG
730.87	BONE INFECT NEC-ANKLE
730.88	BONE INFECT NEC-OTH SITE
730.89	BONE INFECT NEC-MULT
730.90	BONE INFEC NOS-UNSP SITE
730.91	BONE INFECT NOS-SHLDER
730.92	BONE INFECT NOS-UP/ARM
730.93	BONE INFECT NOS-FOREARM
730.94	BONE INFECT NOS-HAND
730.95	BONE INFECT NOS-PELVIS
730.96	BONE INFECT NOS-L/LEG
730.97	BONE INFECT NOS-ANKLE
730.98	BONE INFECT NOS-OTH SITE
730.99	BONE INFECT NOS-MULT
785.52	SEPTIC SHOCK
790.7	BACTEREMIA
996.60	REACTION-UNSP DEVIC/GRFT
996.61	REACT-CARDIAC DEV/GRAFT
996.62	REACT-OTH VASC DEV/GRAFT
996.63	REACT-NERV SYS DEV/GRAFT
996.64	REACT-INDWELL URIN CATH

Table 5.09 Infection

Code	Shortened Description
996.65	REACT-OTH GENITOURIN DEV
996.66	REACT-INTER JOINT PROST
996.67	REACT-OTH INT ORTHO DEV
996.68	REACT- PERITON DIALY CATH
996.69	REACT-INT PROS DEVIC NEC
997.31	VENTLTR ASSOC PNEUMONIA
998.51	INFECTED POSTOP SEROMA
998.59	OTHER POSTOP INFECTION

Last Updated: Version 3.2

Table 5.10 Major Surgery

Code	Shortened Description
00.70	REV HIP REPL-ACETAB/FEM
00.71	REV HIP REPL-ACETAB COMP
00.72	REV HIP REPL-FEM COMP
00.73	REV HIP REPL-LINER/HEAD
00.77	HIP SURFACE, CERMC/POLY
00.80	REV KNEE REPLACEMT-TOTAL
00.81	REV KNEE REPL-TIBIA COMP
00.82	REV KNEE REPL-FEMUR COMP
00.83	REV KNEE REPLACE-PATELLA
00.84	REV KNEE REPL-TIBIA LIN
00.85	RESRF HIP,TOTAL-ACET/FEM
00.86	RESRF HIP,PART-FEM HEAD
00.87	RESRF HIP,PART-ACETABLUM
01.21	CRANIAL SINUS I & D
01.23	REOPEN CRANIOTOMY SITE
01.24	OTHER CRANIOTOMY
01.25	OTHER CRANIECTOMY
01.31	INCISE CEREBRAL MENINGES
01.32	LOBOTOMY & TRACTOTOMY
01.39	OTHER BRAIN INCISION
01.41	THALAMUS OPERATIONS
01.42	GLOBUS PALLIDUS OPS
01.51	EX CEREB MENINGEAL LES
01.52	HEMISPHERECTOMY
01.53	BRAIN LOBECTOMY
01.59	OTHER BRAIN EXCISION
17.31	LAP MUL SEG RES LG INTES
17.32	LAPAROSCOPIC CECECTOMY
17.33	LAP RIGHT HEMICOLECTOMY
17.34	LAP RES TRANSVERSE COLON
17.35	LAP LEFT HEMICOLECTOMY
17.36	LAP SIGMOIDECTOMY

Table 5.10 Major Surgery	
Code	Shortened Description
17.39	LAP PT EX LRG INTEST NEC
32.39	OTH SEG LUNG RESECT NOS
32.49	LOBECTOMY OF LUNG NEC
32.59	OTHER PNEUMONECTOMY NOS
34.51	DECORTICATION OF LUNG
34.59	OTHER PLEURAL EXCISION
34.81	EXCISE DIAPHRAGM LESION
34.82	SUTURE DIAPHRAGM LACERAT
34.83	CLOSE DIAPHRAGM FISTULA
34.84	OTHER DIAPHRAGM REPAIR
34.89	DIAPHRAGM OPERATION NEC
35.10	OPEN VALVULOPLASTY NOS
35.11	OPN AORTIC VALVULOPLASTY
35.12	OPN MITRAL VALVULOPLASTY
35.13	OPN PULMON VALVULOPLASTY
35.14	OPN TRICUS VALVULOPLASTY
35.20	REPLACE HEART VALVE NOS
35.21	REPLACE AORT VALV-TISSUE
35.22	REPLACE AORTIC VALVE NEC
35.23	REPLACE MITR VALV-TISSUE
35.24	REPLACE MITRAL VALVE NEC
35.25	REPLACE PULM VALV-TISSUE
35.26	REPLACE PULMON VALVE NEC
35.27	REPLACE TRIC VALV-TISSUE
35.28	REPLACE TRICUSP VALV NEC
35.31	PAPILLARY MUSCLE OPS
35.32	CHORDAE TENDINEAE OPS
35.33	ANNULOPLASTY
35.34	INFUNDIBULECTOMY
35.35	TRABECUL CARNEAE CORD OP
35.39	TISS ADJ TO VALV OPS NEC
35.42	CREATE SEPTAL DEFECT
35.50	PROSTH REP HRT SEPTA NOS
35.51	PROS REP ATRIAL DEF-OPN
35.53	PROS REP VENTRIC DEF-OPN
35.54	PROS REP ENDOCAR CUSHION
35.60	GRFT REPAIR HRT SEPT NOS
35.61	GRAFT REPAIR ATRIAL DEF
35.62	GRAFT REPAIR VENTRIC DEF
35.63	GRFT REP ENDOCAR CUSHION
35.70	HEART SEPTA REPAIR NOS
35.71	ATRIA SEPTA DEF REP NEC
35.72	VENTR SEPTA DEF REP NEC
35.73	ENDOCAR CUSHION REP NEC
35.81	TOT REPAIR TETRAL FALLOT

Table 5.10 Major Surgery	
Code	Shortened Description
35.82	TOTAL REPAIR OF TAPVC
35.83	TOT REP TRUNCUS ARTERIOS
35.84	TOT COR TRANSPOS GRT VES
35.91	INTERAT VEN RETRN TRANSP
35.92	CONDUIT RT VENT-PUL ART
35.93	CONDUIT LEFT VENTR-AORTA
35.94	CONDUIT ARTIUM-PULM ART
35.98	OTHER HEART SEPTA OPS
35.99	OTHER HEART VALVE OPS
36.03	OPEN CORONRY ANGIOPLASTY
36.10	AORTOCORONARY BYPASS NOS
36.11	AORTOCOR BYPAS-1 COR ART
36.12	AORTOCOR BYPAS-2 COR ART
36.13	AORTOCOR BYPAS-3 COR ART
36.14	AORTCOR BYPAS-4+ COR ART
36.15	1 INT MAM-COR ART BYPASS
36.16	2 INT MAM-COR ART BYPASS
36.17	ABD-CORON ARTERY BYPASS
36.19	HRT REVAS BYPS ANAS NEC
36.31	OPEN CHEST TRANS REVASC
36.91	CORON VESS ANEURYSM REP
36.99	HEART VESSEL OP NEC
37.10	INCISION OF HEART NOS
37.11	CARDIOTOMY
37.32	HEART ANEURYSM EXCISION
37.33	EXC/DEST HRT LESION OPEN
37.35	PARTIAL VENTRICULECTOMY
37.36	EXC LEFT ATRIAL APPENDAG
37.41	IMPL CARDIAC SUPPORT DEV
37.49	HEART/PERICARD REPR NEC
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.55	REM INT BIVENT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.64	REMVE EXT HRT ASSIST SYS
37.66	IMPLANTABLE HRT ASSIST
37.67	IMP CARDIOMYOSTIMUL SYS
38.14	ENDARTERECTOMY OF AORTA
38.16	ABDOMINAL ENDARTERECTOMY
38.18	LOWER LIMB ENDARTERECT
38.34	AORTA RESECTION & ANAST

Table 5.10 Major Surgery	
Code	Shortened Description
38.36	ABD VESSEL RESECT/ANAST
38.37	ABD VEIN RESECT & ANAST
38.44	RESECT ABDM AORTA W REPL
38.48	LEG ARTERY RESEC W REPLA
38.49	LEG VEIN RESECT W REPLAC
38.64	EXCISION OF AORTA
39.25	AORTA-ILIAC-FEMOR BYPASS
39.26	INTRA-ABDOMIN SHUNT NEC
39.29	VASC SHUNT & BYPASS NEC
41.5	TOTAL SPLENECTOMY
42.01	ESOPHAGEAL WEB INCISION
42.09	ESOPHAGEAL INCISION NEC
42.10	ESOPHAGOSTOMY NOS
42.11	CERVICAL ESOPHAGOSTOMY
42.12	ESOPH POUCH EXTERIORIZAT
42.19	EXT FISTULIZAT ESOPH NEC
42.40	ESOPHAGECTOMY NOS
42.41	PARTIAL ESOPHAGECTOMY
42.42	TOTAL ESOPHAGECTOMY
42.51	THORAC ESOPHAGUESOPHAGOS
42.52	THORAC ESOPHAGOGASTROST
42.53	THORAC SM BOWEL INTERPOS
42.54	THORAC ESOPHAGOENTER NEC
42.55	THORAC LG BOWEL INTERPOS
42.56	THORAC ESOPHAGOCOLOS NEC
42.58	THORAC INTERPOSITION NEC
42.59	THORAC ESOPHAG ANAST NEC
42.61	STERN ESOPHAGUESOPHAGOST
42.62	STERN ESOPHAGOGASTROSTOM
42.63	STERN SM BOWEL INTERPOS
42.64	STERN ESOPHAGOENTER NEC
42.65	STERN LG BOWEL INTERPOS
42.66	STERN ESOPHAGOCOLOS NEC
42.68	STERN INTERPOSITION NEC
42.69	STERN ESOPHAG ANAST NEC
42.82	SUTURE ESOPHAGEAL LACER
42.83	ESOPHAGOSTOMY CLOSURE
42.84	ESOPH FISTULA REPAIR NEC
42.85	ESOPHAG STRICTURE REPAIR
42.86	PROD SUBQ TUNNEL NO ANAS
42.87	ESOPHAGEAL GRAFT NEC
42.89	ESOPHAGEAL REPAIR NEC
43.5	PROXIMAL GASTRECTOMY
43.6	DISTAL GASTRECTOMY
43.7	PART GASTREC W JEJ ANAST

Table 5.10 Major Surgery	
Code	Shortened Description
43.81	PART GAST W JEJ TRANSPOS
43.89	PARTIAL GASTRECTOMY NEC
43.91	TOT GAST W INTES INTERPO
43.99	TOTAL GASTRECTOMY NEC
44.00	VAGOTOMY NOS
44.01	TRUNCAL VAGOTOMY
44.02	HIGHLY SELECT VAGOTOMY
44.03	SELECTIVE VAGOTOMY NEC
44.21	DILATE PYLORUS, INCISION
44.29	OTHER PYLOROPLASTY
44.31	HIGH GASTRIC BYPASS
44.39	GASTROENTEROSTOMY NEC
44.40	SUTURE PEPTIC ULCER NOS
44.41	SUT GASTRIC ULCER SITE
44.42	SUTURE DUODEN ULCER SITE
44.5	REVISION GASTRIC ANASTOM
44.61	SUTURE GASTRIC LACERAT
44.63	CLOSE GASTRIC FISTUL NEC
44.64	GASTROPEXY
44.65	ESOPHAGOGASTROPLASTY
44.66	CREAT ESOPHAGASTR SPHINC
44.69	GASTRIC REPAIR NEC
44.91	LIGATE GASTRIC VARICES
44.92	INTRAOP GASTRIC MANIPUL
44.99	GASTRIC OPERATION NEC
45.00	INTESTINAL INCISION NOS
45.01	DUODENAL INCISION
45.02	SMALL BOWEL INCISION NEC
45.03	LARGE BOWEL INCISION
45.31	OTH EXCISE DUODENUM LES
45.32	DESTRUCT DUODEN LES NEC
45.33	LOCAL EXCIS SM BOWEL NEC
45.34	DESTR SM BOWEL LES NEC
45.41	EXCISE LG INTESTINE LES
45.49	DESTRUC LG BOWEL LES NEC
45.50	INTEST SEG ISOLAT NOS
45.51	SM BOWEL SEGMENT ISOLAT
45.52	LG BOWEL SEGMENT ISOLAT
45.61	MULT SEG SM BOWEL EXCIS
45.62	PART SM BOWEL RESECT NEC
45.63	TOTAL REMOVAL SM BOWEL
45.71	OPN MUL SEG LG INTES NEC
45.72	OPEN CECECTOMY NEC
45.73	OPN RT HEMICOLECTOMY NEC
45.74	OPN TRANSV COLON RES NEC

Table 5.10 Major Surgery	
Code	Shortened Description
45.75	OPN LFT HEMICOLECTMY NEC
45.76	OPEN SIGMOIDECTOMY NEC
45.79	PRT LG INTES EXC NEC/NOS
45.82	OP TOT INTR-ABD COLECTMY
45.83	TOT ABD COLECTMY NEC/NOS
45.90	INTESTINAL ANASTOM NOS
45.91	SM-TO-SM BOWEL ANASTOM
45.92	SM BOWEL-RECT STUMP ANAS
45.93	SMALL-TO-LARGE BOWEL NEC
45.94	LG-TO-LG BOWEL ANASTOM
45.95	ANAL ANASTOMOSIS
46.01	SM BOWEL EXTERIORIZATION
46.02	RESECT EXT SEG SM BOWEL
46.03	LG BOWEL EXTERIORIZATION
46.04	RESECT EXT SEG LG BOWEL
46.11	TEMPORARY COLOSTOMY
46.13	PERMANENT COLOSTOMY
46.20	ILEOSTOMY NOS
46.21	TEMPORARY ILEOSTOMY
46.22	CONTINENT ILEOSTOMY
46.23	PERMANENT ILEOSTOMY NEC
46.42	PERICOLOST HERNIA REPAIR
46.43	LG BOWEL STOMA REVIS NEC
46.50	INTEST STOMA CLOSURE NOS
46.51	SM BOWEL STOMA CLOSURE
46.52	LG BOWEL STOMA CLOSURE
46.60	INTESTINAL FIXATION NOS
46.61	SM BOWEL-ABD WALL FIXAT
46.62	SMALL BOWEL FIXATION NEC
46.63	LG BOWEL-ABD WALL FIXAT
46.64	LARGE BOWEL FIXATION NEC
46.71	DUODENAL LACERAT SUTURE
46.72	DUODENAL FISTULA CLOSURE
46.75	SUTURE LG BOWEL LACERAT
46.76	CLOSE LG BOWEL FISTULA
46.79	REPAIR OF INTESTINE NEC
46.91	MYOTOMY OF SIGMOID COLON
46.92	MYOTOMY OF COLON NEC
46.94	REVISE LG BOWEL ANASTOM
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.41	SOAVE SUBMUC RECT RESECT
48.49	PULL-THRU RECT RESEC NEC
48.50	ABDPERNEAL RES RECTM NOS
48.52	OPN ABDPERNEAL RESC REC

Table 5.10 Major Surgery	
Code	Shortened Description
48.59	ABDPERNEAL RESC RECT NEC
48.61	TRANSSAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC
48.72	CLOSURE OF PROCTOSTOMY
48.73	CLOSE RECTAL FIST NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
50.0	HEPATOTOMY
50.21	MARSUPIALIZAT LIVER LES
50.22	PARTIAL HEPATECTOMY
50.29	DESTRUC HEPATIC LES NEC
50.3	HEPATIC LOBECTOMY
51.31	GB-TO-HEPAT DUCT ANAST
51.32	GB-TO-INTESTINE ANASTOM
51.33	GB-TO-PANCREAS ANASTOM
51.34	GB-TO-STOMACH ANASTOMOS
51.35	GALLBLADDER ANASTOM NEC
51.36	CHOLEDOCHOENTEROSTOMY
51.37	HEPATIC DUCT-GI ANASTOM
51.39	BILE DUCT ANASTOMOS NEC
51.41	CDE FOR CALCULUS REMOV
51.42	CDE FOR OBSTRUCTION NEC
51.49	INCIS OBSTR BILE DUC NEC
51.51	COMMON DUCT EXPLORATION
51.59	BILE DUCT INCISION NEC
51.61	EXCIS CYST DUCT REMNANT
51.62	EXCIS AMPULLA OF VATER
51.63	COMMON DUCT EXCIS NEC
51.69	BILE DUCT EXCISION NEC
51.71	SIMPLE SUT-COMMON DUCT
51.72	CHOLEDOCHOPLASTY
51.79	BILE DUCT REPAIR NEC
51.81	SPHINCTER OF ODDI DILAT
51.82	PANCREAT SPHINCTEROTOM
51.83	PANCREAT SPHINCTEROPLAS
51.89	SPHINCT OF ODDI OP NEC
51.91	REPAIR GB LACERATION
51.92	CLOSURE CHOLECYSTOSTOMY
51.93	CLOS BILIARY FISTUL NEC
51.94	REVIS BILE TRACT ANASTOM

Table 5.10 Major Surgery	
Code	Shortened Description
51.95	REMOVE BILE DUCT PROSTH
51.99	BILIARY TRACT OP NEC
52.09	PANCREATOTOMY NEC
52.22	OTHER DESTRU PANCREA LES
52.3	PANCREAT CYST MARSUPIALI
52.4	INT DRAIN PANCREAT CYST
52.51	PROXIMAL PANCREATECTOMY
52.52	DISTAL PANCREATECTOMY
52.53	RAD SUBTOT PANCREATECTOM
52.59	PARTIAL PANCREATECT NEC
52.6	TOTAL PANCREATECTOMY
52.7	RAD PANCREATICODUODENECT
52.92	CANNULATION PANCREA DUC
52.95	PANCREATIC REPAIR NEC
52.96	PANCREATIC ANASTOMOSIS
52.99	PANCREATIC OPERATION NEC
53.72	OPN ABD DIAPHRM HERN NEC
53.75	ABD REP-DIAPHR HERN NOS
53.80	THOR REP-DIAPH HERN NOS
53.81	DIAPHRAGMATIC PLICATION
53.82	PARASTERN HERNIA REPAIR
53.84	OPN THORC DIAPH HERN NEC
54.11	EXPLORATORY LAPAROTOMY
54.12	REOPEN RECENT LAP SITE
54.19	LAPAROTOMY NEC
54.4	DESTRUCT PERITONEAL TISS
54.59	OTH PERITON ADHESIOLYSIS
54.61	RECLOSE POST OP DISRUPT
54.62	DELAYED CLOS ABD WOUND
54.63	ABD WALL SUTURE NEC
54.64	PERITONEAL SUTURE
54.71	REPAIR OF GASTROSCHISIS
54.72	ABDOMEN WALL REPAIR NEC
54.73	PERITONEAL REPAIR NEC
54.74	OMENTAL REPAIR NEC
54.75	MESENTERIC REPAIR NEC
54.92	REMOVE FB FROM PERITON
54.94	CREAT PERITONEOVAS SHUNT
54.95	PERITONEAL INCISION
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
56.51	FORM CUTAN ILEOURETEROST

Table 5.10 Major Surgery	
Code	Shortened Description
56.52	REVIS CUTAN ILEOURETEROS
56.71	URIN DIVERSION TO BOWEL
56.72	REVIS URETEROENTEROSTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.09	PERIREN/URETER INCIS NEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY
65.22	OVARIAN WEDGE RESECTION
65.29	LOCAL DESTR OVA LES NEC
65.39	OTH UNILAT OOPHORECTOMY
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
68.31	LAP SCERVIC HYSTERECTOMY
68.49	TOTAL ABD HYST NEC/NOS
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.69	RADICAL ABD HYST NEC/NOS

Table 5.10 Major Surgery	
Code	Shortened Description
68.79	RADICAL VAG HYST NEC/NOS
81.40	REPAIR OF HIP, NEC
81.51	TOTAL HIP REPLACEMENT
81.52	PARTIAL HIP REPLACEMENT
81.53	REVISE HIP REPLACEMT NOS
81.54	TOTAL KNEE REPLACEMENT
81.55	REVISE KNEE REPLACE NOS

Last Updated: Version 3.2

Table 5.11 Cardiac Surgery	
Code	Shortened Description
35.10	OPEN VALVULOPLASTY NOS
35.11	OPN AORTIC VALVULOPLASTY
35.12	OPN MITRAL VALVULOPLASTY
35.13	OPN PULMON VALVULOPLASTY
35.14	OPN TRICUS VALVULOPLASTY
35.20	REPLACE HEART VALVE NOS
35.21	REPLACE AORT VALV-TISSUE
35.22	REPLACE AORTIC VALVE NEC
35.23	REPLACE MITR VALV-TISSUE
35.24	REPLACE MITRAL VALVE NEC
35.25	REPLACE PULM VALV-TISSUE
35.26	REPLACE PULMON VALVE NEC
35.27	REPLACE TRIC VALV-TISSUE
35.28	REPLACE TRICUSP VALV NEC
35.31	PAPILLARY MUSCLE OPS
35.32	CHORDAE TENDINEAE OPS
35.33	ANNULOPLASTY
35.34	INFUNDIBULECTOMY
35.35	TRABECUL CARNEAE CORD OP
35.39	TISS ADJ TO VALV OPS NEC
35.42	CREATE SEPTAL DEFECT
35.50	PROSTH REP HRT SEPTA NOS
35.51	PROS REP ATRIAL DEF-OPN
35.53	PROS REP VENTRIC DEF-OPN
35.54	PROS REP ENDOCAR CUSHION
35.60	GRFT REPAIR HRT SEPT NOS
35.61	GRAFT REPAIR ATRIAL DEF
35.62	GRAFT REPAIR VENTRIC DEF
35.63	GRFT REP ENDOCAR CUSHION
35.70	HEART SEPTA REPAIR NOS
35.71	ATRIA SEPTA DEF REP NEC
35.72	VENTR SEPTA DEF REP NEC

Table 5.11 Cardiac Surgery	
Code	Shortened Description
35.73	ENDOCAR CUSHION REP NEC
35.81	TOT REPAIR TETRAL FALLOT
35.82	TOTAL REPAIR OF TAPVC
35.83	TOT REP TRUNCUS ARTERIOS
35.84	TOT COR TRANSPOS GRT VES
35.91	INTERAT VEN RETRNR TRANSP
35.92	CONDUIT RT VENT-PUL ART
35.93	CONDUIT LEFT VENTR-AORTA
35.94	CONDUIT ARTIUM-PULM ART
35.98	OTHER HEART SEPTA OPS
35.99	OTHER HEART VALVE OPS
36.03	OPEN CORONRY ANGIOPLASTY
36.10	AORTOCORONARY BYPASS NOS
36.11	AORTOCOR BYPAS-1 COR ART
36.12	AORTOCOR BYPAS-2 COR ART
36.13	AORTOCOR BYPAS-3 COR ART
36.14	AORTCOR BYPAS-4+ COR ART
36.15	1 INT MAM-COR ART BYPASS
36.16	2 INT MAM-COR ART BYPASS
36.17	ABD-CORON ARTERY BYPASS
36.19	HRT REVAS BYPS ANAS NEC
36.31	OPEN CHEST TRANS REVASC
36.91	CORON VESS ANEURYSM REP
36.99	HEART VESSEL OP NEC
37.10	INCISION OF HEART NOS
37.11	CARDIOTOMY
37.32	HEART ANEURYSM EXCISION
37.33	EXC/DEST HRT LESION OPEN
37.35	PARTIAL VENTRICULECTOMY
37.36	EXC LEFT ATRIAL APPENDAG
37.41	IMPL CARDIAC SUPPORT DEV
37.49	HEART/PERICARD REPR NEC
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.55	REM INT BIVENT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.64	REMVE EXT HRT ASSIST SYS
37.66	IMPLANTABLE HRT ASSIST
37.67	IMP CARDIOMYOSTIMUL SYS

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Table 5.13 Hip Fractures	
Code	Shortened Description
733.10	PATH FX UNSPECIFIED SITE
733.14	PATH FX NECK OF FEMUR
733.15	PATH FX OTH SPCF PRT FMR
808.0	FRACTURE ACETABULUM-CLOS
808.1	FRACTURE ACETABULUM-OPEN
808.2	FRACTURE OF PUBIS-CLOSED
808.3	FRACTURE OF PUBIS-OPEN
808.41	FRACTURE OF ILIUM-CLOSED
808.42	FRACTURE ISCHIUM-CLOSED
808.43	PELV FX-CLOS/PELV DISRUP
808.49	PELVIC FRACTURE NEC-CLOS
808.51	FRACTURE OF ILIUM-OPEN
808.52	FRACTURE OF ISCHIUM-OPEN
808.53	PELV FX-OPEN/PELV DISRUP
808.59	PELVIC FRACTURE NEC-OPEN
808.8	PELVIC FRACTURE NOS-CLOS
808.9	PELVIC FRACTURE NOS-OPEN
820.00	FX FEMUR INTRCAPS NOS-CL
820.01	FX UP FEMUR EPIPHY-CLOS
820.02	FX FEMUR, MIDCERVIC-CLOS
820.03	FX BASE FEMORAL NCK-CLOS
820.09	FX FEMUR INTRCAPS NEC-CL
820.10	FX FEMUR INTRCAP NOS-OPN
820.11	FX UP FEMUR EPIPHY-OPEN
820.12	FX FEMUR, MIDCERVIC-OPEN
820.13	FX BASE FEMORAL NCK-OPEN
820.19	FX FEMUR INTRCAP NEC-OPN
820.20	TROCHANTERIC FX NOS-CLOS
820.21	INTERTROCHANTERIC FX-CL
820.22	SUBTROCHANTERIC FX-CLOSE
820.30	TROCHANTERIC FX NOS-OPEN
820.31	INTERTROCHANTERIC FX-OPN
820.32	SUBTROCHANTERIC FX-OPEN
820.8	FX NECK OF FEMUR NOS-CL
820.9	FX NECK OF FEMUR NOS-OPN
821.00	FX FEMUR NOS-CLOSED
821.01	FX FEMUR SHAFT-CLOSED
821.10	FX FEMUR NOS-OPEN
821.11	FX FEMUR SHAFT-OPEN

Table 5.14 Burns	
Code	Shortened Description
692.71	SUNBURN
692.76	2 ND DEGREE SUNBURN
692.77	3 RD DEGREE SUNBURN
692.82	DERMATITIS OTH RADIATION
782.0	SKIN SENSATION DISTURB
906.5	LATE EFF HEAD/NECK BURN
906.6	LATE EFF WRIST/HAND BURN
906.7	LATE EFF BURN EXTREM NEC
906.8	LATE EFFECT OF BURNS NEC
906.9	LATE EFFECT OF BURN NOS
910.0	ABRASION HEAD
910.1	ABRASION HEAD-INFECTED
911.0	ABRASION TRUNK
911.1	ABRASION TRUNK-INFECTED
912.0	ABRASION SHOULDER/ARM
912.1	ABRASION SHLDR/ARM-INFEC
913.0	ABRASION FOREARM
913.1	ABRASION FOREARM-INFECT
914.0	ABRASION HAND
914.1	ABRASION HAND-INFECTED
915.0	ABRASION FINGER
915.1	ABRASION FINGER-INFECTED
916.0	ABRASION HIP & LEG
916.1	ABRASION HIP/LEG-INFECT
917.0	ABRASION FOOT & TOE
917.1	ABRASION FOOT/TOE-INFEC
919.0	ABRASION NEC
919.1	ABRASION NEC-INFECTED
940.0	CHEMICAL BURN PERIOCLAR
940.1	BURN PERIOCLAR AREA NEC
940.2	ALKAL BURN CORNEA/CONJUN
940.3	ACID BURN CORNEA/CONJUNC
940.4	BURN CORNEA/CONJUNCT NEC
940.5	BURN W EYEBALL DESTRUCT
940.9	BURN EYE & ADNEXA NOS
941.00	BURN NOS HEAD-UNSPEC
941.01	BURN NOS EAR
941.02	BURN NOS EYE
941.03	BURN NOS LIP
941.04	BURN NOS CHIN
941.05	BURN NOS NOSE
941.06	BURN NOS SCALP

Table 5.14 Burns	
Code	Shortened Description
941.07	BURN NOS FACE NEC
941.08	BURN NOS NECK
941.09	BURN NOS HEAD-MULT
941.10	1ST DEG BURN HEAD NOS
941.11	1ST DEG BURN EAR
941.12	1ST DEG BURN EYE
941.13	1ST DEG BURN LIP
941.14	1ST DEG BURN CHIN
941.15	1ST DEG BURN NOSE
941.16	1ST DEG BURN SCALP
941.17	1ST DEG BURN FACE NEC
941.18	1ST DEG BURN NECK
941.19	1ST DEG BURN HEAD-MULT
941.20	2ND DEG BURN HEAD NOS
941.21	2ND DEG BURN EAR
941.22	2ND DEG BURN EYE
941.23	2ND DEG BURN LIP
941.24	2ND DEG BURN CHIN
941.25	2ND DEG BURN NOSE
941.26	2ND DEG BURN SCALP
941.27	2ND DEG BURN FACE NEC
941.28	2ND DEG BURN NECK
941.29	2ND DEG BURN HEAD-MULT
941.30	3RD DEG BURN HEAD NOS
941.31	3RD DEG BURN EAR
941.32	3RD DEG BURN EYE
941.33	3RD DEG BURN LIP
941.34	3RD DEG BURN CHIN
941.35	3RD DEG BURN NOSE
941.36	3RD DEG BURN SCALP
941.37	3RD DEG BURN FACE NEC
941.38	3RD DEG BURN NECK
941.39	3RD DEG BURN HEAD-MULT
941.40	DEEP 3 DEG BURN HEAD NOS
941.41	DEEP 3RD DEG BURN EAR
941.42	DEEP 3RD DEG BURN EYE
941.43	DEEP 3RD DEG BURN LIP
941.44	DEEP 3RD DEG BURN CHIN
941.45	DEEP 3RD DEG BURN NOSE
941.46	DEEP 3RD DEG BURN SCALP
941.47	DEEP 3RD BURN FACE NEC
941.48	DEEP 3RD DEG BURN NECK
941.49	DEEP 3 DEG BRN HEAD-MULT
941.50	3RD BURN W LOSS-HEAD NOS

Table 5.14 Burns	
Code	Shortened Description
941.51	3RD DEG BURN W LOSS-EAR
941.52	3RD DEG BURN W LOSS-EYE
941.53	3RD DEG BURN W LOSS-LIP
941.54	3RD DEG BURN W LOSS-CHIN
941.55	3RD DEG BURN W LOSS-NOSE
941.56	3RD DEG BRN W LOSS-SCALP
941.57	3RD BURN W LOSS-FACE NEC
941.58	3RD DEG BURN W LOSS-NECK
941.59	3RD BRN W LOSS-HEAD MULT
942.00	BURN NOS TRUNK-UNSPEC
942.01	BURN NOS BREAST
942.02	BURN NOS CHEST WALL
942.03	BURN NOS ABDOMINAL WALL
942.04	BURN NOS BACK
942.05	BURN NOS GENITALIA
942.09	BURN NOS TRUNK NEC
942.10	1ST DEG BURN TRUNK NOS
942.11	1ST DEG BURN BREAST
942.12	1ST DEG BURN CHEST WALL
942.13	1ST DEG BURN ABDOMN WALL
942.14	1ST DEG BURN BACK
942.15	1ST DEG BURN GENTALIA
942.19	1ST DEG BURN TRUNK NEC
942.20	2ND DEG BURN TRUNK NOS
942.21	2ND DEG BURN BREAST
942.22	2ND DEG BURN CHEST WALL
942.23	2ND DEG BURN ABDOMN WALL
942.24	2ND DEG BURN BACK
942.25	2ND DEG BURN GENITALIA
942.29	2ND DEG BURN TRUNK NEC
942.30	3RD DEG BURN TRUNK NOS
942.31	3RD DEG BURN BREAST
942.32	3RD DEG BURN CHEST WALL
942.33	3RD DEG BURN ABDOMN WALL
942.34	3RD DEG BURN BACK
942.35	3RD DEG BURN GENITALIA
942.39	3RD DEG BURN TRUNK NEC
942.40	DEEP 3RD BURN TRUNK NOS
942.41	DEEP 3RD DEG BURN BREAST
942.42	DEEP 3RD BURN CHEST WALL
942.43	DEEP 3RD BURN ABDOM WALL
942.44	DEEP 3RD DEG BURN BACK
942.45	DEEP 3RD BURN GENITALIA
942.49	DEEP 3RD BURN TRUNK NEC

Table 5.14 Burns	
Code	Shortened Description
942.50	3RD BRN W LOSS-TRUNK NOS
942.51	3RD BURN W LOSS-BREAST
942.52	3RD BRN W LOSS-CHEST WLL
942.53	3RD BRN W LOSS-ABDOM WLL
942.54	3RD DEG BURN W LOSS-BACK
942.55	3RD BRN W LOSS-GENITALIA
942.59	3RD BRN W LOSS-TRUNK NEC
943.00	BURN NOS ARM-UNSPEC
943.01	BURN NOS FOREARM
943.02	BURN NOS ELBOW
943.03	BURN NOS UPPER ARM
943.04	BURN NOS AXILLA
943.05	BURN NOS SHOULDER
943.06	BURN NOS SCAPULA
943.09	BURN NOS ARM-MULTIPLE
943.10	1ST DEG BURN ARM NOS
943.11	1ST DEG BURN FOREARM
943.12	1ST DEG BURN ELBOW
943.13	1ST DEG BURN UPPER ARM
943.14	1ST DEG BURN AXILLA
943.15	1ST DEG BURN SHOULDER
943.16	1ST DEG BURN SCAPULA
943.19	1ST DEG BURN ARM-MULT
943.20	2ND DEG BURN ARM NOS
943.21	2ND DEG BURN FOREARM
943.22	2ND DEG BURN ELBOW
943.23	2ND DEG BURN UPPER ARM
943.24	2ND DEG BURN AXILLA
943.25	2ND DEG BURN SHOULDER
943.26	2ND DEG BURN SCAPULA
943.29	2ND DEG BURN ARM-MULT
943.30	3RD DEG BURN ARM NOS
943.31	3RD DEG BURN FOREARM
943.32	3RD DEG BURN ELBOW
943.33	3RD DEG BURN UPPER ARM
943.34	3RD DEG BURN AXILLA
943.35	3RD DEG BURN SHOULDER
943.36	3RD DEG BURN SCAPULA
943.39	3RD DEG BURN ARM-MULT
943.40	DEEP 3 DEG BURN ARM NOS
943.41	DEEP 3 DEG BURN FOREARM
943.42	DEEP 3 DEG BURN ELBOW
943.43	DEEP 3 DEG BRN UPPER ARM
943.44	DEEP 3 DEG BURN AXILLA

Table 5.14 Burns	
Code	Shortened Description
943.45	DEEP 3 DEG BURN SHOULDER
943.46	DEEP 3 DEG BURN SCAPULA
943.49	DEEP 3 DEG BURN ARM-MULT
943.50	3RD BURN W LOSS-ARM NOS
943.51	3RD BURN W LOSS-FOREARM
943.52	3RD BURN W LOSS-ELBOW
943.53	3RD BRN W LOSS-UPPER ARM
943.54	3RD BURN W LOSS-AXILLA
943.55	3RD BURN W LOSS-SHOULDER
943.56	3RD BURN W LOSS-SCAPULA
943.59	3RD BURN W LOSS-ARM MULT
944.00	BURN NOS HAND-UNSPEC
944.01	BURN NOS FINGER
944.02	BURN NOS THUMB
944.03	BURN NOS MULT FINGERS
944.04	BURN NOS FINGER W THUMB
944.05	BURN NOS PALM
944.06	BURN NOS BACK OF HAND
944.07	BURN NOS WRIST
944.08	BURN NOS HAND-MULTIPLE
944.10	1ST DEG BURN HAND NOS
944.11	1ST DEG BURN FINGER
944.12	1ST DEG BURN THUMB
944.13	1ST DEG BURN MULT FINGER
944.14	1 DEG BURN FINGR W THUMB
944.15	1ST DEG BURN PALM
944.16	1 DEG BURN BACK OF HAND
944.17	1ST DEG BURN WRIST
944.18	1ST DEG BURN HAND-MULT
944.20	2ND DEG BURN HAND NOS
944.21	2ND DEG BURN FINGER
944.22	2ND DEG BURN THUMB
944.23	2ND DEG BURN MULT FINGER
944.24	2 DEG BURN FINGR W THUMB
944.25	2ND DEG BURN PALM
944.26	2 DEG BURN BACK OF HAND
944.27	2ND DEG BURN WRIST
944.28	2ND DEG BURN HAND-MULT
944.30	3RD DEG BURN HAND NOS
944.31	3RD DEG BURN FINGER
944.32	3RD DEG BURN THUMB
944.33	3RD DEG BURN MULT FINGER
944.34	3 DEG BURN FINGR W THUMB
944.35	3RD DEG BURN PALM

Table 5.14 Burns	
Code	Shortened Description
944.36	3 DEG BURN BACK OF HAND
944.37	3RD DEG BURN WRIST
944.38	3RD DEG BURN HAND-MULT
944.40	DEEP 3 DEG BRN HAND NOS
944.41	DEEP 3 DEG BURN FINGER
944.42	DEEP 3 DEG BURN THUMB
944.43	DEEP 3RD BRN MULT FINGER
944.44	DEEP 3RD BRN FNGR W THMB
944.45	DEEP 3 DEG BURN PALM
944.46	DEEP 3RD BRN BACK OF HND
944.47	DEEP 3 DEG BURN WRIST
944.48	DEEP 3 DEG BRN HAND-MULT
944.50	3RD BRN W LOSS-HAND NOS
944.51	3RD BURN W LOSS-FINGER
944.52	3RD BURN W LOSS-THUMB
944.53	3RD BRN W LOSS-MULT FNGR
944.54	3RD BRN W LOSS-FNGR/THMB
944.55	3RD BURN W LOSS-PALM
944.56	3RD BRN W LOSS-BK OF HND
944.57	3RD BURN W LOSS-WRIST
944.58	3RD BRN W LOSS HAND-MULT
945.00	BURN NOS LEG-UNSPEC
945.01	BURN NOS TOE
945.02	BURN NOS FOOT
945.03	BURN NOS ANKLE
945.04	BURN NOS LOWER LEG
945.05	BURN NOS KNEE
945.06	BURN NOS THIGH
945.09	BURN NOS LEG-MULTIPLE
945.10	1ST DEG BURN LEG NOS
945.11	1ST DEG BURN TOE
945.12	1ST DEG BURN FOOT
945.13	1ST DEG BURN ANKLE
945.14	1ST DEG BURN LOWER LEG
945.15	1ST DEG BURN KNEE
945.16	1ST DEG BURN THIGH
945.19	1ST DEG BURN LEG-MULT
945.20	2ND DEG BURN LEG NOS
945.21	2ND DEG BURN TOE
945.22	2ND DEG BURN FOOT
945.23	2ND DEG BURN ANKLE
945.24	2ND DEG BURN LOWER LEG
945.25	2ND DEG BURN KNEE
945.26	2ND DEG BURN THIGH

Table 5.14 Burns	
Code	Shortened Description
945.29	2ND DEG BURN LEG-MULT
945.30	3RD DEG BURN LEG NOS
945.31	3RD DEG BURN TOE
945.32	3RD DEG BURN FOOT
945.33	3RD DEG BURN ANKLE
945.34	3RD DEG BURN LOW LEG
945.35	3RD DEG BURN KNEE
945.36	3RD DEG BURN THIGH
945.39	3RD DEG BURN LEG-MULT
945.40	DEEP 3RD DEG BRN LEG NOS
945.41	DEEP 3RD DEG BURN TOE
945.42	DEEP 3RD DEG BURN FOOT
945.43	DEEP 3RD DEG BURN ANKLE
945.44	DEEP 3RD DEG BRN LOW LEG
945.45	DEEP 3RD DEG BURN KNEE
945.46	DEEP 3RD DEG BURN THIGH
945.49	DEEP 3 DEG BURN LEG-MULT
945.50	3 DEG BRN W LOSS-LEG NOS
945.51	3 DEG BURN W LOSS-TOE
945.52	3 DEG BURN W LOSS-FOOT
945.53	3 DEG BURN W LOSS-ANKLE
945.54	3 DEG BRN W LOSS-LOW LEG
945.55	3 DEG BURN W LOSS-KNEE
945.56	3 DEG BURN W LOSS-THIGH
945.59	3 DEG BRN W LOSS LEG-MLT
946.0	BURN NOS MULTIPLE SITE
946.1	1ST DEG BURN MULT SITE
946.2	2ND DEG BURN MULT SITE
946.3	3RD DEG BURN MULT SITE
946.4	DEEP 3 DEG BRN MULT SITE
946.5	3 RD BRN W LOSS-MULT SITE
947.8	BURN INTERNAL ORGAN NEC
947.9	BURN INTERNAL ORGAN NOS
948.00	BDY BRN < 10%/3D DEG NOS
948.10	10-19% BDY BRN/3 DEG NOS
948.11	10-19% BDY BRN/10-19% 3D
948.20	20-29% BDY BRN/3 DEG NOS
948.21	20-29% BDY BRN/10-19% 3D
948.22	20-29% BDY BRN/20-29% 3D
948.30	30-39% BDY BRN/3 DEG NOS
948.31	30-39% BDY BRN/10-19% 3D
948.32	30-39% BDY BRN/20-29% 3D
948.33	30-39% BDY BRN/30-39% 3D
948.40	40-49% BDY BRN/3 DEG NOS

Table 5.14 Burns	
Code	Shortened Description
948.41	40-49% BDY BRN/10-19% 3D
948.42	40-49% BDY BRN/20-29% 3D
948.43	40-49% BDY BRN/30-39% 3D
948.44	40-49% BDY BRN/40-49% 3D
948.50	50-59% BDY BRN/3 DEG NOS
948.51	50-59% BDY BRN/10-19% 3D
948.52	50-59% BDY BRN/20-29% 3D
948.53	50-59% BDY BRN/30-39% 3D
948.54	50-59% BDY BRN/40-49% 3D
948.55	50-59% BDY BRN/50-59% 3D
948.60	60-69% BDY BRN/3 DEG NOS
948.61	60-69% BDY BRN/10-19% 3D
948.62	60-69% BDY BRN/20-29% 3D
948.63	60-69% BDY BRN/30-39% 3D
948.64	60-69% BDY BRN/40-49% 3D
948.65	60-69% BDY BRN/50-59% 3D
948.66	60-69% BDY BRN/60-69% 3D
948.70	70-79% BDY BRN/3 DEG NOS
948.71	70-79% BDY BRN/10-19% 3D
948.72	70-79% BDY BRN/20-29% 3D
948.73	70-79% BDY BRN/30-39% 3D
948.74	70-79% BDY BRN/40-49% 3D
948.75	70-79% BDY BRN/50-59% 3D
948.76	70-79% BDY BRN/60-69% 3D
948.77	70-79% BDY BRN/70-79% 3D
948.80	80-89% BDY BRN/3 DEG NOS
948.81	80-89% BDY BRN/10-19% 3D
948.82	80-89% BDY BRN/20-29% 3D
948.83	80-89% BDY BRN/30-39% 3D
948.84	80-89% BDY BRN/40-49% 3D
948.85	80-89% BDY BRN/50-59% 3D
948.86	80-89% BDY BRN/60-69% 3D
948.87	80-89% BDY BRN/70-79% 3D
948.88	80-89% BDY BRN/80-89% 3D
948.90	90% + BDY BRN/3 DEG NOS
948.91	90% + BDY BRN/10-19% 3RD
948.92	90% + BDY BRN/20-29% 3RD
948.93	90% + BDY BRN/30-39% 3RD
948.94	90% + BDY BRN/40-49% 3RD
948.95	90% + BDY BRN/50-59% 3RD
948.96	90% + BDY BRN/60-69% 3RD
948.97	90% + BDY BRN/70-79% 3RD
948.98	90% + BDY BRN/80-89% 3RD
948.99	90% + BDY BRN/90% + 3 RD

Table 5.14 Burns	
Code	Shortened Description
949.0	BURN NOS
949.1	1ST DEGREE BURN NOS
949.2	2ND DEGREE BURN NOS
949.3	3RD DEGREE BURN NOS
949.4	DEEP 3RD DEG BURN NOS
949.5	3RD BURN W LOSS-SITE NOS

Last Updated: Version 3.2

Table 5.15 Transplant	
Code	Shortened Description
996.80	COMP ORGAN TRANSPLNT NOS
996.81	COMPL KIDNEY TRANSPLANT
996.82	COMPL LIVER TRANSPLANT
996.83	COMPL HEART TRANSPLANT
996.84	COMPL LUNG TRANSPLANT
996.85	COMPL MARROW TRANSPLANT
996.86	COMPL PANCREAS TRANSPLNT
996.87	COMP INTESTINE TRANSPLNT
996.89	COMP OTH ORGAN TRANSPLNT
V42.0	KIDNEY TRANSPLANT STATUS
V42.1	HEART TRANSPLANT STATUS
V42.2	HEART VALVE TRANSPLANT
V42.3	SKIN TRANSPLANT STATUS
V42.4	BONE TRANSPLANT STATUS
V42.5	CORNEA TRANSPLANT STATUS
V42.6	LUNG TRANSPLANT STATUS
V42.7	LIVER TRANSPLANT STATUS
V42.81	TRNSPL STATUS-BNE MARROW
V42.82	TRNSPL STS-PERIP STM CELL
V42.83	TRNSPL STATUS-PANCREAS
V42.84	TRNSPL STATUS-INTESTINES
V42.89	TRNSPL STATUS ORGAN NEC
V42.9	TRANSPLANT STATUS NOS

Last Updated: Version 3.2

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.21	TRANSAB PROCTOSIGMOIDOSC
48.22	PROCTOSIGMOIDOSC THRU ST
48.23	RIGID PROCTOSIGMOIDOSCPY

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
48.24	CLOSED RECTAL BIOPSY
48.25	OPEN RECTAL BIOPSY
48.26	PERIRECTAL TISSUE BIOPSY
48.29	RECT/PERIRECT DX OP NEC
48.31	RAD ELECTROCOAG-RECT LES
48.32	ELECTROCOAG RECT LES NEC
48.33	LASER DESTRUC RECTAL LES
48.34	CRYOSURG DESTR RECT LES
48.35	LOCAL EXCIS RECTAL LES
48.36	POLYPECTOMY OF RECTUM
48.41	SOAVE SUBMUC RECT RESECT
48.42	LAP PULL-THRU RES RECTUM
48.43	OPN PULL-THRU RES RECTUM
48.49	PULL-THRU RECT RESEC NEC
48.50	ABDPERNEAL RES RECTM NOS
48.51	LAP ABDPERNEAL RESC REC
48.52	OPN ABDPERNEAL RESC REC
48.59	ABDPERNEAL RESC RECT NEC
48.61	TRANS SAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC
48.71	SUTURE OF RECTAL LACER
48.72	CLOSURE OF PROCTOSTOMY
48.73	CLOSE RECTAL FIST NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
48.79	REPAIR OF RECTUM NEC
48.81	PERIRECTAL INCISION
48.82	PERIRECTAL EXCISION
48.91	INCIS RECTAL STRICTURE
48.92	ANORECTAL MYOMECTOMY
48.93	REPAIR PERIRECT FISTULA
48.99	RECTAL PERIRECT OP NEC
49.01	INCIS PERIANAL ABSCESS
49.02	PERIANAL INCISION NEC
49.03	EXCIS PERIANAL SKIN TAG
49.04	PERIANAL EXCISION NEC
49.11	ANAL FISTULOTOMY
49.12	ANAL FISTULECTOMY
49.39	OTHER DESTRUC ANUS LES

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
49.44	HEMORRHOID CRYOTHERAPY
49.45	HEMORRHOID LIGATION
49.46	HEMORRHOIDECTOMY
49.49	HEMORRHOID PROCEDURE NEC
49.51	LEFT LAT SPHINCTEROTOMY
49.52	POST SPHINCTEROTOMY
49.59	ANAL SPHINCTEROTOMY NEC
49.6	EXCISION OF ANUS
49.71	SUTURE ANAL LACERATION
49.72	ANAL CERCLAGE
49.73	CLOSURE OF ANAL FISTULA
49.74	GRACILIS MUSC TRANSPLAN
49.75	IMPL OR REV ART ANAL SPH
49.76	REMOV ART ANAL SPHINCTER
49.79	ANAL SPHINCT REPAIR NEC
49.91	INCISION OF ANAL SEPTUM
49.92	INSERT SUBQ ANAL STIMUL
49.93	ANAL INCISION NEC
49.94	REDUCTION ANAL PROLAPSE
49.95	CONTROL ANAL HEMORRHAGE
49.99	ANAL OPERATION NEC
55.01	NEPHROTOMY
55.02	NEPHROSTOMY
55.03	PERCU NEPHROSTM W/O FRAG
55.04	PERCU NEPHROSTMY W FRAG
55.11	PYELOTOMY
55.12	PYELOSTOMY
55.31	RENAL LES MARSUPIALIZAT
55.32	OPN ABLTN RENAL LES/TISS
55.33	PERC ABLTN RENL LES/TISS
55.34	LAP ABLTN RENAL LES/TISS
55.35	ABLTN RENAL LES/TISS NEC
55.39	LOC DESTR RENAL LES NEC
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
55.61	RENAL AUTOTRANSPLANT
55.69	KIDNEY TRANSPLANT NEC
55.7	NEPHROPEXY
55.81	SUTURE KIDNEY LACERATION
55.82	CLOSE NEPHROST & PYELOST
55.83	CLOSE RENAL FISTULA NEC

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
55.84	REDUCE RENAL PEDICL TORS
55.85	SYMPHYSIOTOMY
55.86	RENAL ANASTOMOSIS
55.87	CORRECT URETEROPELV JUNC
55.89	RENAL REPAIR NEC
55.91	RENAL DECAPSULATION
55.95	LOCAL RENAL PERFUSION
55.96	RENAL INJECTION NEC
55.97	IMPLANT MECHANIC KIDNEY
55.98	REMOV MECHANICAL KIDNEY
55.99	RENAL OPERATION NEC
56.0	TU REMOV URETER OBSTRUCT
56.1	URETERAL MEATOTOMY
56.34	OPEN URETERAL BIOPSY
56.40	URETERECTOMY NOS
56.41	PARTIAL URETERECTOMY
56.42	TOTAL URETERECTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
56.81	INTRALUM URETE ADHESIOLY
56.82	SUTURE URETERAL LACERAT
56.83	URETEROSTOMY CLOSURE
56.84	CLOSE URETER FISTULA NEC
56.85	URETEROPEXY
56.86	REMOVE URETERAL LIGATURE
56.89	REPAIR OF URETER NEC
56.91	URETERAL MEATUS DILATION
56.92	IMPLANT URETERAL STIMUL
56.93	REPLACE URETERAL STIMUL
56.94	REMOVE URETERAL STIMULAT
56.95	LIGATION OF URETER
56.99	URETERAL OPERATION NEC
57.0	TU BLADDER CLEARANCE
57.12	CYSTOTOMY & ADHESIOLYSIS
57.17	PERCUTANEOUS CYSTOSTOMY
57.18	OTHER SUPRAPU CYSTOSTOMY
57.19	CYSTOTOMY NEC
57.21	VESICOSTOMY
57.22	REVISE CLO VESICOSTOMY
57.34	OPEN BLADDER BIOPSY
57.39	BLADDER DIAGNOS PROC NEC
57.41	TU ADHESIOLYSIS BLADDER
57.49	TU DESTRUC BLADD LES NEC

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
57.59	BLADDER LES DESTRUCT NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
57.91	BLADDER SPHINCTEROTOMY
57.92	BLADDER NECK DILATION
57.93	CONTROL BLADD HEMORRHAGE
57.96	IMPLANT BLADDER STIMULAT
57.97	REPLACE BLADDER STIMULAT
57.98	REMOVE BLADDER STIMULAT
57.99	BLADDER OPERATION NEC
58.0	URETHROTOMY
58.1	URETHRAL MEATOTOMY
58.31	ENDOSC DESTR URETHRA LES
58.39	OTHER DESTRU URETHRA LES
58.41	SUTURE URETHRAL LACERAT
58.42	URETHROSTOMY CLOSURE
58.43	CLOSE URETH FISTULA NEC
58.44	URETHRAL REANASTOMOSIS
58.45	HYPO-EPISPADIUS REPAIR
58.46	URETH RECONSTRUCTION NEC
58.47	URETHRAL MEATOPLASTY
58.49	URETHRAL REPAIR NEC
58.5	URETH STRICTURE RELEASE
58.91	PERIURETHRAL INCISION
58.92	PERIURETHRAL EXCISION
58.93	IMPLT ARTF URIN SPHINCT
58.99	URETH/PERIURETH OP NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.03	LAP LYS PERIREN/URET ADH
59.09	PERIREN/URETER INCIS NEC
59.11	OTH LYS PERIVES ADHESIO
59.12	LAP LYS PERIVESURETH ADH
59.19	PERIVESICAL INCISION NEC
59.3	URETHROVES JUNCT PLICAT

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
59.4	SUPRAPUBIC SLING OP
59.5	RETROPUBIC URETH SUSPENS
59.6	PARAURETHRAL SUSPENSION
59.71	LEVATOR MUSC SUSPENSION
59.79	URIN INCONTIN REPAIR NEC
59.91	PERIREN/VESICLE EXCISION
59.92	PERIREN/VESICLE OP NEC
60.0	INCISION OF PROSTATE
60.12	OPEN PROSTATIC BIOPSY
60.14	OPEN SEMINAL VESICLES BX
60.15	PERIPROSTATIC BIOPSY
60.18	PROSTATIC DX PROCED NEC
60.19	SEMIN VES DX PROCED NEC
60.21	TRANSURETH PROSTATECTOMY
60.29	OTH TRANSURETH PROSTATEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY
60.61	LOS EXCIS PROSTATIC LES
60.62	PERINEAL PROSTATECTOMY
60.69	PROSTATECTOMY NEC
60.71	PERCUT SEMIN VES ASPIRAT
60.72	SEMINAL VESICLE INCISION
60.73	SEMINAL VESICLE EXCISION
60.79	SEMINAL VESICLE OP NEC
60.81	PERIPROSTATIC INCISION
60.82	PERIPROSTATIC EXCISION
60.93	REPAIR OF PROSTATE
60.94	CONTROL PROSTATE HEMORR
60.95	TRANS BAL DIL PROS URETH
60.96	TU DESTR PROSTATE BY MT
60.97	OTH TU DESTR PROS - RT
60.99	PROSTATIC OPERATION NEC
61.0	SCROTUM & TUNICA I & D
61.2	EXCISION OF HYDROCELE
61.3	SCROTAL LES DESTRUCTION
61.41	SUTURE SCROTAL LACERAT
61.42	SCROTAL FISTULA REPAIR
61.49	SCROTUM/TUNIC REPAIR NEC
61.91	PERCUT TUNICA ASPIRATION
61.92	EXCISION TUNICA LES NEC
61.99	SCROTUM & TUNICA OP NEC
62.0	INCISION OF TESTES
62.12	OPEN TESTICULAR BIOPSY
62.19	TESTES DX PROCEDURE NEC

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
62.2	TESTICULAR LES DESTRUCT
62.3	UNILATERAL ORCHIECTOMY
62.41	REMOVE BOTH TESTES
62.42	REMOVE SOLITARY TESTIS
62.5	ORCHIOPEXY
62.61	SUTURE TESTICULAR LACER
62.69	TESTICULAR REPAIR NEC
62.7	INSERT TESTICULAR PROSTH
62.99	TESTICULAR OPERATION NEC
63.01	SPERMATIC CORD/VAS BIOPS
63.09	SPERMAT CORD/VAS DX NEC
63.1	EXC SPERMATIC VARICOCELE
63.2	EXCISE EPIDIDYMIS CYST
63.3	EXCISE CORD/EPID LES NEC
63.4	EPIDIDYMECTOMY
63.51	SUTURE CORD & EPID LACER
63.52	REDUCTION TORSION TESTES
63.53	TRANSPLANT SPERMAT CORD
63.59	CORD & EPIDID REPAIR NEC
63.6	VASOTOMY
63.70	MALE STERILIZATION NOS
63.71	LIGATION OF VAS DEFERENS
63.72	SPERMATIC CORD LIGATION
63.73	VASECTOMY
63.81	SUTURE VAS & EPIDID LAC
63.82	POSTOP VAS RECONSTRUCT
63.83	EPIDIDYMOVASOSTOMY
63.84	REMOVAL VAS LIGATURE
63.85	REMOV VAS DEFERENS VALVE
63.89	VAS & EPIDIDY REPAIR NEC
63.91	SPERMATOCELE ASPIRATION
63.92	EPIDIDYMYOTOMY
63.93	SPERMATIC CORD INCISION
63.94	SPERM CORD ADHESIOLYSIS
63.95	INSERT VALVE IN VAS DEF
63.99	CORD/EPID/VAS OPS NEC
64.0	CIRCUMCISION
64.11	PENILE BIOPSY
64.19	PENILE DIAGNOST PROC NEC
64.2	LOCAL EXCIS PENILE LES
64.3	AMPUTATION OF PENIS
64.41	SUTURE PENILE LACERATION
64.42	RELEASE OF CHORDEE
64.43	CONSTRUCTION OF PENIS
64.44	RECONSTRUCTION OF PENIS

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
64.45	REPLANTATION OF PENIS
64.49	PENILE REPAIR NEC
64.5	SEX TRANSFORMAT OP NEC
64.91	DORSAL/LAT SLIT PREPUCE
64.92	INCISION OF PENIS
64.93	DIVISION OF PENILE ADHES
64.94	FIT EXT PENILE PROSTHES
64.95	INS NONINFL PENIS PROSTH
64.96	REMOVE INT PENILE PROSTH
64.97	INS INFLATE PENIS PROSTH
64.98	PENILE OPERATION NEC
64.99	MALE GENITAL OP NEC
65.01	LAPAROSCOPIC OOPHOROTOMY
65.09	OTHER OOPHOROTOMY
65.11	OVARIAN ASPIRAT BIOPSY
65.12	OVARIAN BIOPSY NEC
65.13	LAP BIOPSY OF OVARY
65.14	OTH LAP DX PROC OVARIES
65.19	OVARIAN DX PROCEDURE NEC
65.21	OVARIAN CYST MARSUPIALIZ
65.22	OVARIAN WEDGE RESECTION
65.23	LAP MARSUP OVARIAN CYST
65.24	LAP WEDGE RESECT OVARY
65.25	OTH LAP LOC EXC DEST OVA
65.29	LOCAL DESTR OVA LES NEC
65.31	LAP UNILAT OOPHORECTOMY
65.39	OTH UNILAT OOPHORECTOMY
65.41	LAP UNI SALPINGO-OOPHOR
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.53	LAP REMOVE BOTH OVARIES
65.54	LAP REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
65.63	LAP REMOVE OVARIES/TUBES
65.64	LAP REMOVE REM OVA/TUBE
65.71	OTH SIMPLE SUTURE OVARY
65.72	OTH REIMPLANT OF OVARY
65.73	OTH SALPINGO-OOPHOROPLAS
65.74	LAP SIMPLE SUTURE OVARY
65.75	LAP REIMPLANT OF OVARY
65.76	LAP SALPINGO-OOPHOROPLAS
65.79	REPAIR OF OVARY NEC
65.81	LAP ADHESIOLYS OVA/TUBE

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
65.89	ADHESIOLYSIS OVARY/TUBE
65.91	ASPIRATION OF OVARY
65.92	TRANSPLANTATION OF OVARY
65.93	MANUAL RUPT OVARIAN CYST
65.94	OVARIAN DENERVATION
65.95	OVARIAN TORSION RELEASE
65.99	OVARIAN OPERATION NEC
66.01	SALPINGOTOMY
66.02	SALPINGOSTOMY
66.11	FALLOPIAN TUBE BIOPSY
66.19	FALLOP TUBE DX PROC NEC
66.21	BILAT ENDOSC CRUSH TUBE
66.22	BILAT ENDOSC DIVIS TUBE
66.29	BILAT ENDOS OCC TUBE NEC
66.31	BILAT TUBAL CRUSHING NEC
66.32	BILAT TUBAL DIVISION NEC
66.39	BILAT TUBAL DESTRUCT NEC
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
66.71	SIMPL SUTURE FALLOP TUBE
66.72	SALPINGO-OOPHOROSTOMY
66.73	SALPINGO-SALPINGOSTOMY
66.74	SALPINGO-UTEROSTOMY
66.79	FALLOP TUBE REPAIR NEC
66.8	FALLOPIAN TUBE INSUFFLAT
66.91	FALLOPIAN TUBE ASPIRAT
66.92	UNILAT FALLOP TUBE DESTR
66.93	IMPL FALLOP TUBE PROSTH
66.94	REMOV FALLOP TUBE PROSTH
66.95	BLOW THERAPEUT INTO TUBE
66.96	FALLOPIAN TUBE DILATION
66.97	BURY FIMBRIAE IN UTERUS
66.99	FALLOPIAN TUBE OP NEC
67.0	CERVICAL CANAL DILATION
67.11	ENDOCERVICAL BIOPSY
67.12	CERVICAL BIOPSY NEC
67.19	CERVICAL DX PROCEDUR NEC
67.2	CONIZATION OF CERVIX
67.31	CERVICAL CYST MARSUPIAL
67.32	CERVICAL LES CAUTERIZAT

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
67.33	CERVICAL LES CRYOTHERAPY
67.39	CERVICAL LES DESTRUC NEC
67.4	AMPUTATION OF CERVIX
67.51	TRANSAB CERCLAGE CERVIX
67.59	OTH REP INT CERVICAL OS
67.61	SUTURE CERVICAL LACERAT
67.62	CERVICAL FISTULA REPAIR
67.69	CERVICAL REPAIR NEC
68.0	HYSTEROTOMY
68.11	DIGITAL EXAM OF UTERUS
68.12	HYSTEROSCOPY
68.13	OPEN UTERINE BIOPSY
68.14	OPEN UTERINE LIGAMENT BX
68.15	CLOS UTERINE LIGAMENT BX
68.16	CLOSED UTERINE BIOPSY
68.19	UTERUS/ADNEX DX PROC NEC
68.21	ENDOMET SYNECHIAE DIVIS
68.22	INCISION UTERINE SEPTUM
68.23	ENDOMETRIAL ABLATION
68.29	UTERINE LES DESTRUCT NEC
68.31	LAP SCERVIC HYSTERECTOMY
68.39	SUBTOTL ABD HYST NEC/NOS
68.41	LAP TOTAL ABDOMINAL HYST
68.49	TOTAL ABD HYST NEC/NOS
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.61	LAP RADICAL ABDOMNL HYST
68.69	RADICAL ABD HYST NEC/NOS
68.71	LAP RADICAL VAGINAL HYST
68.79	RADICAL VAG HYST NEC/NOS
68.8	PELVIC EVISCERATION
68.9	HYSTERECTOMY NEC/NOS
69.01	D & C FOR PREG TERMINAT
69.02	D & C POST DELIVERY
69.09	D & C NEC
69.19	DESTRUC UTER SUPPORT NEC
69.21	INTERPOSIT OP UTERIN LIG
69.22	UTERINE SUSPENSION NEC
69.23	VAG REPAIR INVERS UTERUS
69.29	UTERUS/ADNEXA REPAIR NEC
69.3	PARACERV UTERINE DENERV
69.41	SUTURE UTERINE LACERAT
69.42	CLOSURE UTERINE FISTULA
69.49	UTERINE REPAIR NEC
69.51	ASPIRAT CURET-PREG TERMI

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
69.52	ASPIRAT CURET-POST DELIV
69.59	ASPIR CURETT UTERUS NEC
69.6	MENSTRUAL EXTRACTION
69.7	INSERTION OF IUD
69.91	INSERT UTERINE DEVICE
69.92	ARTIFICIAL INSEMINATION
69.93	INSERTION OF LAMINARIA
69.94	MAN REPLACE INVERT UTER
69.95	INCISION OF CERVIX
69.96	REMOVE CERVICAL CERCLAGE
69.97	REMOVE PENETRAT CERV FB
69.98	UTERINE SUPPORT OP NEC
69.99	UTERINE OPERATION NEC
70.0	CULDOCENTESIS
70.11	HYMENOTOMY
70.12	CULDOTOMY
70.13	INTRALUM VAG ADHESIOLYS
70.14	VAGINOTOMY NEC
70.21	VAGINOSCOPY
70.22	CULDOSCOPY
70.23	CUL-DE-SAC BIOPSY
70.24	VAGINAL BIOPSY
70.29	VAGIN/CUL-DE-SAC DX NEC
70.31	HYMENECTOMY
70.32	EXCIS CUL-DE-SAC LESION
70.33	EXCISION VAGINAL LESION
70.4	VAGINAL OBLITERATION
70.50	CYSTOCEL/RECTOCEL REPAIR
70.51	CYSTOCELE REPAIR
70.52	RECTOCELE REPAIR
70.53	CYSTO & RECTO W GRF/PROS
70.54	REP CYSTOCEL W GRFT/PROS
70.55	REP RECTOCELE W GRF/PROS
70.61	VAGINAL CONSTRUCTION
70.62	VAGINAL RECONSTRUCTION
70.63	VAGINAL CONST W GRF/PROS
70.64	VAG RECONST W GRFT/PROS
70.71	SUTURE VAGINA LACERATION
70.72	REPAIR COLOVAGIN FISTULA
70.73	REPAIR RECTOVAG FISTULA
70.74	REP VAGINOENT FISTUL NEC
70.75	REPAIR VAG FISTULA NEC
70.76	HYMENORRHAPHY
70.77	VAGINAL SUSPENS & FIXAT
70.78	VAG SUSP/FIX W GRFT/PROS

Table 5.16 Urological/Perineal Codes	
Code	Shortened Description
70.79	VAGINAL REPAIR NEC
70.8	VAGINAL VAULT OBLITERAT
70.91	VAGINAL OPERATION NEC
70.92	CUL-DE-SAC OPERATION NEC
70.93	CUL-DE-SAC GRF/PROS NEC
70.94	INSERT BIOLOGICAL GRAFT
70.95	INSERT SYNTH GRAFT/PROST
71.01	VULVAR ADHESIOLYSIS
71.09	INCIS VULVA/PERINEUM NEC
71.11	VULVAR BIOPSY
71.19	VULVAR DIAGNOS PROC NEC
71.21	PERCUTAN BARTHOLIN ASPIR
71.22	INCISE BARTHOLIN'S GLAND
71.23	BARTHOLIN GLAND MARSUP
71.24	DESTRUC BARTHOLIN GLAND
71.29	BARTHOLIN'S GLAND OP NEC
71.3	LOCAL VULVAR EXCIS NEC
71.4	OPERATIONS ON CLITORIS
71.5	RADICAL VULVECTOMY
71.61	UNILATERAL VULVECTOMY
71.62	BILATERAL VULVECTOMY
71.71	SUTURE VULVAR LACERATION
71.72	REPAIR VULVAR FISTULA
71.79	VULVAR/PERIN REPAIR NEC
71.8	OTHER VULVAR OPERATIONS
71.9	OTHER FEMALE GENITAL OPS

Last Updated: Version 3.2

Table 5.17 Intracranial Neurosurgery	
Code	Shortened Description
01.21	CRANIAL SINUS I & D
01.23	REOPEN CRANIOTOMY SITE
01.24	OTHER CRANIOTOMY
01.25	OTHER CRANIECTOMY
01.31	INCISE CEREBRAL MENINGES
01.32	LOBOTOMY & TRACTOTOMY
01.39	OTHER BRAIN INCISION
01.41	THALAMUS OPERATIONS
01.42	GLOBUS PALLIDUS OPS
01.51	EX CEREB MENINGEAL LES
01.52	HEMISPHERECTOMY
01.53	BRAIN LOBECTOMY
01.59	OTHER BRAIN EXCISION

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Table 5.19 General Surgery	
Code	Shortened Description
17.31	LAP MUL SEG RES LG INTES
17.32	LAPAROSCOPIC CECECTOMY
17.33	LAP RIGHT HEMICOLECTOMY
17.34	LAP RES TRANSVERSE COLON
17.35	LAP LEFT HEMICOLECTOMY
17.36	LAP SIGMOIDECTOMY
17.39	LAP PT EX LRG INTEST NEC
32.39	OTH SEG LUNG RESECT NOS
32.49	LOBECTOMY OF LUNG NEC
32.59	OTHER PNEUMONECTOMY NOS
34.51	DECORTICATION OF LUNG
34.59	OTHER PLEURAL EXCISION
34.81	EXCISE DIAPHRAGM LESION
34.82	SUTURE DIAPHRAGM LACERAT
34.83	CLOSE DIAPHRAGM FISTULA
34.84	OTHER DIAPHRAGM REPAIR
34.89	DIAPHRAGM OPERATION NEC
41.5	TOTAL SPLENECTOMY
42.01	ESOPHAGEAL WEB INCISION
42.09	ESOPHAGEAL INCISION NEC
42.10	ESOPHAGOSTOMY NOS
42.11	CERVICAL ESOPHAGOSTOMY
42.12	ESOPH POUCH EXTERIORIZAT
42.19	EXT FISTULIZAT ESOPH NEC
42.40	ESOPHAGECTOMY NOS
42.41	PARTIAL ESOPHAGECTOMY
42.42	TOTAL ESOPHAGECTOMY
42.51	THORAC ESOPHAGUESOPHAGOS
42.52	THORAC ESOPHAGOGASTROST
42.53	THORAC SM BOWEL INTERPOS
42.54	THORAC ESOPHAGOENTER NEC
42.55	THORAC LG BOWEL INTERPOS
42.56	THORAC ESOPHAGOCOLOS NEC
42.58	THORAC INTERPOSITION NEC
42.59	THORAC ESOPHAG ANAST NEC
42.61	STERN ESOPHAGUESOPHAGOST
42.62	STERN ESOPHAGOGASTROSTOM
42.63	STERN SM BOWEL INTERPOS
42.64	STERN ESOPHAGOENTER NEC

Table 5.19 General Surgery	
Code	Shortened Description
42.65	STERN LG BOWEL INTERPOS
42.66	STERN ESOPHAGOCOLOS NEC
42.68	STERN INTERPOSITION NEC
42.69	STERN ESOPHAG ANAST NEC
42.82	SUTURE ESOPHAGEAL LACER
42.83	ESOPHAGOSTOMY CLOSURE
42.84	ESOPH FISTULA REPAIR NEC
42.85	ESOPHAG STRICTURE REPAIR
42.86	PROD SUBQ TUNNEL NO ANAS
42.87	ESOPHAGEAL GRAFT NEC
42.89	ESOPHAGEAL REPAIR NEC
43.5	PROXIMAL GASTRECTOMY
43.6	DISTAL GASTRECTOMY
43.7	PART GASTREC W JEJ ANAST
43.81	PART GAST W JEJ TRANSPOS
43.89	PARTIAL GASTRECTOMY NEC
43.91	TOT GAST W INTES INTERPO
43.99	TOTAL GASTRECTOMY NEC
44.00	VAGOTOMY NOS
44.01	TRUNCAL VAGOTOMY
44.02	HIGHLY SELECT VAGOTOMY
44.03	SELECTIVE VAGOTOMY NEC
44.21	DILATE PYLORUS, INCISION
44.29	OTHER PYLOROPLASTY
44.31	HIGH GASTRIC BYPASS
44.39	GASTROENTEROSTOMY NEC
44.40	SUTURE PEPTIC ULCER NOS
44.41	SUT GASTRIC ULCER SITE
44.42	SUTURE DUODEN ULCER SITE
44.5	REVISION GASTRIC ANASTOM
44.61	SUTURE GASTRIC LACERAT
44.63	CLOSE GASTRIC FISTUL NEC
44.64	GASTROPEXY
44.65	ESOPHAGOGASTROPLASTY
44.66	CREAT ESOPHAGASTR SPHINC
44.69	GASTRIC REPAIR NEC
44.91	LIGATE GASTRIC VARICES
44.92	INTRAOP GASTRIC MANIPUL
44.99	GASTRIC OPERATION NEC
45.00	INTESTINAL INCISION NOS
45.01	DUODENAL INCISION
45.02	SMALL BOWEL INCISION NEC
45.03	LARGE BOWEL INCISION
45.31	OTH EXCISE DUODENUM LES

Table 5.19 General Surgery	
Code	Shortened Description
45.32	DESTRUCT DUODEN LES NEC
45.33	LOCAL EXCIS SM BOWEL NEC
45.34	DESTR SM BOWEL LES NEC
45.41	EXCISE LG INTESTINE LES
45.49	DESTRUC LG BOWEL LES NEC
45.50	INTEST SEG ISOLAT NOS
45.51	SM BOWEL SEGMENT ISOLAT
45.52	LG BOWEL SEGMENT ISOLAT
45.61	MULT SEG SM BOWEL EXCIS
45.62	PART SM BOWEL RESECT NEC
45.63	TOTAL REMOVAL SM BOWEL
45.71	OPN MUL SEG LG INTES NEC
45.72	OPEN CECECTOMY NEC
45.73	OPN RT HEMICOLECTOMY NEC
45.74	OPN TRANSV COLON RES NEC
45.75	OPN LFT HEMICOLECTMY NEC
45.76	OPEN SIGMOIDECTOMY NEC
45.79	PRT LG INTES EXC NEC/NOS
45.82	OP TOT INTR-ABD COLECTMY
45.83	TOT ABD COLECTMY NEC/NOS
45.90	INTESTINAL ANASTOM NOS
45.91	SM-TO-SM BOWEL ANASTOM
45.92	SM BOWEL-RECT STUMP ANAS
45.93	SMALL-TO-LARGE BOWEL NEC
45.94	LG-TO-LG BOWEL ANASTOM
45.95	ANAL ANASTOMOSIS
46.01	SM BOWEL EXTERIORIZATION
46.02	RESECT EXT SEG SM BOWEL
46.03	LG BOWEL EXTERIORIZATION
46.04	RESECT EXT SEG LG BOWEL
46.11	TEMPORARY COLOSTOMY
46.13	PERMANENT COLOSTOMY
46.20	ILEOSTOMY NOS
46.21	TEMPORARY ILEOSTOMY
46.22	CONTINENT ILEOSTOMY
46.23	PERMANENT ILEOSTOMY NEC
46.42	PERICOLOST HERNIA REPAIR
46.43	LG BOWEL STOMA REVIS NEC
46.50	INTEST STOMA CLOSURE NOS
46.51	SM BOWEL STOMA CLOSURE
46.52	LG BOWEL STOMA CLOSURE
46.60	INTESTINAL FIXATION NOS
46.61	SM BOWEL-ABD WALL FIXAT
46.62	SMALL BOWEL FIXATION NEC

Table 5.19 General Surgery	
Code	Shortened Description
46.63	LG BOWEL-ABD WALL FIXAT
46.64	LARGE BOWEL FIXATION NEC
46.71	DUODENAL LACERAT SUTURE
46.72	DUODENAL FISTULA CLOSURE
46.76	CLOSE LG BOWEL FISTULA
46.79	REPAIR OF INTESTINE NEC
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.41	SOAVE SUBMUC RECT RESECT
48.49	PULL-THRU RECT RESEC NEC
48.50	ABDPERNEAL RES RECTM NOS
48.52	OPN ABDPERNEAL RESC REC
48.59	ABDPERNEAL RESC RECT NEC
48.61	TRANS SAC RECTOSIGMOIDECT
48.62	ANT RECT RESECT W COLOST
48.63	ANTERIOR RECT RESECT NEC
48.64	POSTERIOR RECT RESECTION
48.65	DUHAMEL RECTAL RESECTION
48.69	RECTAL RESECTION NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
50.0	HEPATOTOMY
50.21	MARSUPIALIZAT LIVER LES
50.22	PARTIAL HEPATECTOMY
50.29	DESTRUC HEPATIC LES NEC
50.3	HEPATIC LOBECTOMY
51.31	GB-TO-HEPAT DUCT ANAST
51.32	GB-TO-INTESTINE ANASTOM
51.33	GB-TO-PANCREAS ANASTOM
51.34	GB-TO-STOMACH ANASTOMOS
51.35	GALLBLADDER ANASTOM NEC
51.36	CHOLEDOCHOENTEROSTOMY
51.37	HEPATIC DUCT-GI ANASTOM
51.39	BILE DUCT ANASTOMOS NEC
51.41	CDE FOR CALCULUS REMOV
51.42	CDE FOR OBSTRUCTION NEC
51.49	INCIS OBSTR BILE DUC NEC
51.51	COMMON DUCT EXPLORATION
51.59	BILE DUCT INCISION NEC
51.61	EXCIS CYST DUCT REMNANT
51.62	EXCIS AMPULLA OF VATER
51.63	COMMON DUCT EXCIS NEC
51.69	BILE DUCT EXCISION NEC

Table 5.19 General Surgery	
Code	Shortened Description
51.71	SIMPLE SUT-COMMON DUCT
51.72	CHOLEDOCHOPLASTY
51.79	BILE DUCT REPAIR NEC
51.81	SPHINCTER OF ODDI DILAT
51.82	PANCREAT SPHINCTEROTOM
51.83	PANCREAT SPHINCTEROPLAS
51.89	SPHINCT OF ODDI OP NEC
51.91	REPAIR GB LACERATION
51.92	CLOSURE CHOLECYSTOSTOMY
51.93	CLOS BILIARY FISTUL NEC
51.94	REVIS BILE TRACT ANASTOM
51.95	REMOVE BILE DUCT PROSTH
51.99	BILIARY TRACT OP NEC
52.09	PANCREATOTOMY NEC
52.22	OTHER DESTRU PANCREA LES
52.3	PANCREAT CYST MARSUPIALI
52.4	INT DRAIN PANCREAT CYST
52.51	PROXIMAL PANCREATECTOMY
52.52	DISTAL PANCREATECTOMY
52.53	RAD SUBTOT PANCREATECTOM
52.59	PARTIAL PANCREATECT NEC
52.6	TOTAL PANCREATECTOMY
52.7	RAD PANCREATICODUODENECT
52.92	CANNULATION PANCREA DUC
52.95	PANCREATIC REPAIR NEC
52.96	PANCREATIC ANASTOMOSIS
52.99	PANCREATIC OPERATION NEC
53.72	OPN ABD DIAPHRM HERN NEC
53.75	ABD REP-DIAPHR HERN NOS
53.80	THOR REP-DIAPH HERN NOS
53.81	DIAPHRAGMATIC PLICATION
53.82	PARASTERN HERNIA REPAIR
53.84	OPN THORC DIAPH HERN NEC
54.11	EXPLORATORY LAPAROTOMY
54.12	REOPEN RECENT LAP SITE
54.19	LAPAROTOMY NEC
54.4	DESTRUCT PERITONEAL TISS
54.59	OTH PERITON ADHESIOLYSIS
54.61	RECLOSE POST OP DISRUPT
54.62	DELAYED CLOS ABD WOUND
54.63	ABD WALL SUTURE NEC
54.64	PERITONEAL SUTURE
54.71	REPAIR OF GASTROSCHISIS
54.72	ABDOMEN WALL REPAIR NEC

Table 5.19 General Surgery	
Code	Shortened Description
54.73	PERITONEAL REPAIR NEC
54.74	OMENTAL REPAIR NEC
54.75	MESENTERIC REPAIR NEC
54.92	REMOVE FB FROM PERITON
54.94	CREAT PERITONEOVAS SHUNT
54.95	PERITONEAL INCISION

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Table 5.20 Gynecological Surgery	
Code	Shortened Description
65.22	OVARIAN WEDGE RESECTION
65.29	LOCAL DESTR OVA LES NEC
65.39	OTH UNILAT OOPHORECTOMY
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
68.31	LAP SCERVIC HYSTERECTOMY
68.49	TOTAL ABD HYST NEC/NOS
68.51	LAP AST VAG HYSTERECTOMY
68.59	VAG HYSTERECTOMY NEC/NOS
68.69	RADICAL ABD HYST NEC/NOS
68.79	RADICAL VAG HYST NEC/NOS

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Table 5.21 Urological Surgery	
Code	Shortened Description
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
56.51	FORM CUTAN ILEOURETEROST
56.52	REVIS CUTAN ILEOURETEROS

Table 5.21 Urological Surgery	
Code	Shortened Description
56.71	URIN DIVERSION TO BOWEL
56.72	REVIS URETEROENTEROSTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.09	PERIREN/URETER INCIS NEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY

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Table 5.22 Elective Hip Replacement	
Code	Shortened Description
00.70	REV HIP REPL-ACETAB/FEM
00.71	REV HIP REPL-ACETAB COMP
00.72	REV HIP REPL-FEM COMP
00.73	REV HIP REPL-LINER/HEAD
00.77	HIP SURFACE, CERMC/POLY
00.85	RESRF HIP,TOTAL-ACET/FEM
00.86	RESRF HIP,PART-FEM HEAD
00.87	RESRF HIP,PART-ACETABLUM
81.51	TOTAL HIP REPLACEMENT
81.52	PARTIAL HIP REPLACEMENT
81.53	REVISE HIP REPLACEMENT NOS

Code	Shortened Description
00.80	REV KNEE REPLACEMT-TOTAL
00.81	REV KNEE REPL-TIBIA COMP
00.82	REV KNEE REPL-FEMUR COMP
00.83	REV KNEE REPLACE-PATELLA
00.84	REV KNEE REPL-TIBIA LIN
81.54	TOTAL KNEE REPLACEMENT
81.55	REVISE KNEE REPLACE NOS

Last Updated: Version 3.2

Code	Shortened Description
81.40	REPAIR OF HIP, NEC

Last Updated: Version 3.2

Code	Shortened Description
00.70	REV HIP REPL-ACETAB/FEM
00.71	REV HIP REPL-ACETAB COMP
00.72	REV HIP REPL-FEM COMP
00.73	REV HIP REPL-LINER/HEAD
00.77	HIP SURFACE, CERMC/POLY
00.80	REV KNEE REPLACEMT-TOTAL
00.81	REV KNEE REPL-TIBIA COMP
00.82	REV KNEE REPL-FEMUR COMP
00.83	REV KNEE REPLACE-PATELLA
00.84	REV KNEE REPL-TIBIA LIN
00.85	RESRF HIP,TOTAL-ACET/FEM
00.86	RESRF HIP,PART-FEM HEAD
00.87	RESRF HIP,PART-ACETABLUM
01.21	CRANIAL SINUS I & D
01.23	REOPEN CRANIOTOMY SITE
01.24	OTHER CRANIOTOMY
01.25	OTHER CRANIECTOMY
01.31	INCISE CEREBRAL MENINGES
01.32	LOBOTOMY & TRACTOTOMY
01.39	OTHER BRAIN INCISION
01.41	THALAMUS OPERATIONS
01.42	GLOBUS PALLIDUS OPS
01.51	EX CEREB MENINGEAL LES
01.52	HEMISPHERECTOMY
01.53	BRAIN LOBECTOMY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
01.59	OTHER BRAIN EXCISION
32.39	OTH SEG LUNG RESECT NOS
32.49	LOBECTOMY OF LUNG NEC
32.59	OTHER PNEUMONECTOMY NOS
34.51	DECORTICATION OF LUNG
34.59	OTHER PLEURAL EXCISION
34.81	EXCISE DIAPHRAGM LESION
34.82	SUTURE DIAPHRAGM LACERAT
34.83	CLOSE DIAPHRAGM FISTULA
34.84	OTHER DIAPHRAGM REPAIR
34.89	DIAPHRAGM OPERATION NEC
35.71	ATRIA SEPTA DEF REP NEC
36.03	OPEN CORONRY ANGIOPLASTY
36.31	OPEN CHEST TRANS REVASC
36.91	CORON VESS ANEURYSM REP
36.99	HEART VESSEL OP NEC
37.10	INCISION OF HEART NOS
37.11	CARDIOTOMY
37.32	HEART ANEURYSM EXCISION
37.33	EXC/DEST HRT LESION OPEN
37.35	PARTIAL VENTRICULECTOMY
37.36	EXC LEFT ATRIAL APPENDAG
37.41	IMPL CARDIAC SUPPORT DEV
37.49	HEART/PERICARD REPR NEC
37.51	HEART TRANSPLANTATION
37.52	IMP TOT INT BI HT RP SYS
37.53	REPL/REP THR UNT TOT HRT
37.54	REPL/REP OTH TOT HRT SYS
37.55	REM INT BIVENT HRT SYS
37.60	IMP BIVN EXT HRT AST SYS
37.62	INSRT NON-IMPL CIRC DEV
37.63	REPAIR HEART ASSIST SYS
37.64	REMVE EXT HRT ASSIST SYS
37.66	IMPLANTABLE HRT ASSIST
37.67	IMP CARDIOMYOSTIMUL SYS
41.5	TOTAL SPLENECTOMY
42.01	ESOPHAGEAL WEB INCISION
42.09	ESOPHAGEAL INCISION NEC
42.10	ESOPHAGOSTOMY NOS
42.11	CERVICAL ESOPHAGOSTOMY
42.12	ESOPH POUCH EXTERIORIZAT
42.19	EXT FISTULIZAT ESOPH NEC
42.40	ESOPHAGECTOMY NOS
42.41	PARTIAL ESOPHAGECTOMY
42.42	TOTAL ESOPHAGECTOMY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
42.51	THORAC ESOPHAGOESOPHAGOS
42.52	THORAC ESOPHAGOGASTROST
42.53	THORAC SM BOWEL INTERPOS
42.54	THORAC ESOPHAGOENTER NEC
42.55	THORAC LG BOWEL INTERPOS
42.56	THORAC ESOPHAGOCOLOS NEC
42.58	THORAC INTERPOSITION NEC
42.59	THORAC ESOPHAG ANAST NEC
42.61	STERN ESOPHAGOESOPHAGOST
42.62	STERN ESOPHAGOGASTROSTOM
42.63	STERN SM BOWEL INTERPOS
42.64	STERN ESOPHAGOENTER NEC
42.65	STERN LG BOWEL INTERPOS
42.66	STERN ESOPHAGOCOLOS NEC
42.68	STERN INTERPOSITION NEC
42.69	STERN ESOPHAG ANAST NEC
42.82	SUTURE ESOPHAGEAL LACER
42.83	ESOPHAGOSTOMY CLOSURE
42.84	ESOPH FISTULA REPAIR NEC
42.85	ESOPHAG STRICTURE REPAIR
42.86	PROD SUBQ TUNNEL NO ANAS
42.87	ESOPHAGEAL GRAFT NEC
42.89	ESOPHAGEAL REPAIR NEC
43.5	PROXIMAL GASTRECTOMY
43.6	DISTAL GASTRECTOMY
43.7	PART GASTREC W JEJ ANAST
43.81	PART GAST W JEJ TRANSPOS
43.89	PARTIAL GASTRECTOMY NEC
43.91	TOT GAST W INTES INTERPO
43.99	TOTAL GASTRECTOMY NEC
44.00	VAGOTOMY NOS
44.01	TRUNCAL VAGOTOMY
44.02	HIGHLY SELECT VAGOTOMY
44.03	SELECTIVE VAGOTOMY NEC
44.21	DILATE PYLORUS, INCISION
44.29	OTHER PYLOROPLASTY
44.31	HIGH GASTRIC BYPASS
44.39	GASTROENTEROSTOMY NEC
44.40	SUTURE PEPTIC ULCER NOS
44.41	SUT GASTRIC ULCER SITE
44.42	SUTURE DUODEN ULCER SITE
44.5	REVISION GASTRIC ANASTOM
44.61	SUTURE GASTRIC LACERAT
44.63	CLOSE GASTRIC FISTUL NEC
44.64	GASTROPEXY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
44.65	ESOPHAGOGASTROPLASTY
44.66	CREAT ESOPHAGASTR SPHINC
44.69	GASTRIC REPAIR NEC
44.91	LIGATE GASTRIC VARICES
44.92	INTRAOP GASTRIC MANIPUL
44.99	GASTRIC OPERATION NEC
45.01	DUODENAL INCISION
45.02	SMALL BOWEL INCISION NEC
45.31	OTH EXCISE DUODENUM LES
45.32	DESTRUCT DUODEN LES NEC
45.33	LOCAL EXCIS SM BOWEL NEC
45.34	DESTR SM BOWEL LES NEC
45.41	EXCISE LG INTESTINE LES
45.51	SM BOWEL SEGMENT ISOLAT
45.52	LG BOWEL SEGMENT ISOLAT
45.61	MULT SEG SM BOWEL EXCIS
45.62	PART SM BOWEL RESECT NEC
45.63	TOTAL REMOVAL SM BOWEL
45.82	OP TOT INTR-ABD COLECTMY
45.83	TOT ABD COLECTMY NEC/NOS
45.91	SM-TO-SM BOWEL ANASTOM
46.01	SM BOWEL EXTERIORIZATION
46.02	RESECT EXT SEG SM BOWEL
46.11	TEMPORARY COLOSTOMY
46.20	ILEOSTOMY NOS
46.21	TEMPORARY ILEOSTOMY
46.22	CONTINENT ILEOSTOMY
46.23	PERMANENT ILEOSTOMY NEC
46.42	PERICOLOST HERNIA REPAIR
46.43	LG BOWEL STOMA REVIS NEC
46.50	INTEST STOMA CLOSURE NOS
46.51	SM BOWEL STOMA CLOSURE
46.52	LG BOWEL STOMA CLOSURE
46.60	INTESTINAL FIXATION NOS
46.61	SM BOWEL-ABD WALL FIXAT
46.62	SMALL BOWEL FIXATION NEC
46.63	LG BOWEL-ABD WALL FIXAT
46.64	LARGE BOWEL FIXATION NEC
46.71	DUODENAL LACERAT SUTURE
46.72	DUODENAL FISTULA CLOSURE
46.79	REPAIR OF INTESTINE NEC
48.0	PROCTOTOMY
48.1	PROCTOSTOMY
48.41	SOAVE SUBMUC RECT RESECT
48.49	PULL-THRU RECT RESEC NEC

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
48.52	OPN ABDPERNEAL RESC REC
48.59	ABDPERNEAL RESC RECT NEC
48.72	CLOSURE OF PROCTOSTOMY
48.73	CLOSE RECTAL FIST NEC
48.74	RECTORECTOSTOMY
48.75	ABDOMINAL PROCTOPEXY
48.76	PROCTOPEXY NEC
50.0	HEPATOTOMY
50.21	MARSUPIALIZAT LIVER LES
50.22	PARTIAL HEPATECTOMY
50.29	DESTRUC HEPATIC LES NEC
50.3	HEPATIC LOBECTOMY
51.31	GB-TO-HEPAT DUCT ANAST
51.32	GB-TO-INTESTINE ANASTOM
51.33	GB-TO-PANCREAS ANASTOM
51.34	GB-TO-STOMACH ANASTOMOS
51.35	GALLBLADDER ANASTOM NEC
51.36	CHOLEDOCHOENTEROSTOMY
51.37	HEPATIC DUCT-GI ANASTOM
51.39	BILE DUCT ANASTOMOS NEC
51.41	CDE FOR CALCULUS REMOV
51.42	CDE FOR OBSTRUCTION NEC
51.49	INCIS OBSTR BILE DUC NEC
51.51	COMMON DUCT EXPLORATION
51.59	BILE DUCT INCISION NEC
51.61	EXCIS CYST DUCT REMNANT
51.62	EXCIS AMPULLA OF VATER
51.63	COMMON DUCT EXCIS NEC
51.69	BILE DUCT EXCISION NEC
51.71	SIMPLE SUT-COMMON DUCT
51.72	CHOLEDOCHOPLASTY
51.79	BILE DUCT REPAIR NEC
51.81	SPHINCTER OF ODDI DILAT
51.82	PANCREAT SPHINCTEROTOM
51.83	PANCREAT SPHINCTEROPLAS
51.89	SPHINCT OF ODDI OP NEC
51.91	REPAIR GB LACERATION
51.92	CLOSURE CHOLECYSTOSTOMY
51.93	CLOS BILIARY FISTUL NEC
51.94	REVIS BILE TRACT ANASTOM
51.95	REMOVE BILE DUCT PROSTH
51.99	BILIARY TRACT OP NEC
52.09	PANCREATOTOMY NEC
52.22	OTHER DESTRU PANCREA LES
52.3	PANCREAT CYST MARSUPIALI

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
52.4	INT DRAIN PANCREAT CYST
52.51	PROXIMAL PANCREATECTOMY
52.52	DISTAL PANCREATECTOMY
52.53	RAD SUBTOT PANCREATECTOM
52.59	PARTIAL PANCREATECT NEC
52.6	TOTAL PANCREATECTOMY
52.7	RAD PANCREATICODUODENECT
52.92	CANNULATION PANCREA DUC
52.95	PANCREATIC REPAIR NEC
52.96	PANCREATIC ANASTOMOSIS
52.99	PANCREATIC OPERATION NEC
53.72	OPN ABD DIAPHRM HERN NEC
53.75	ABD REP-DIAPHR HERN NOS
53.80	THOR REP-DIAPH HERN NOS
53.81	DIAPHRAGMATIC PLICATION
53.82	PARASTERN HERNIA REPAIR
53.84	OPN THORC DIAPH HERN NEC
54.11	EXPLORATORY LAPAROTOMY
54.12	REOPEN RECENT LAP SITE
54.19	LAPAROTOMY NEC
54.4	DESTRUCT PERITONEAL TISS
54.59	OTH PERITON ADHESIOLYSIS
54.61	RECLOSE POST OP DISRUPT
54.62	DELAYED CLOS ABD WOUND
54.63	ABD WALL SUTURE NEC
54.64	PERITONEAL SUTURE
54.71	REPAIR OF GASTROSCHISIS
54.72	ABDOMEN WALL REPAIR NEC
54.73	PERITONEAL REPAIR NEC
54.74	OMENTAL REPAIR NEC
54.75	MESENTERIC REPAIR NEC
54.92	REMOVE FB FROM PERITON
54.94	CREAT PERITONEOVAS SHUNT
54.95	PERITONEAL INCISION
55.4	PARTIAL NEPHRECTOMY
55.51	NEPHROURETERECTOMY
55.52	SOLITARY KIDNEY NEPHRECT
55.53	REJECTED KIDNEY NEPHRECT
55.54	BILATERAL NEPHRECTOMY
56.51	FORM CUTAN ILEOURETEROST
56.52	REVIS CUTAN ILEOURETEROS
56.71	URIN DIVERSION TO BOWEL
56.72	REVIS URETEROENTEROSTOMY
56.73	NEPHROCYSTANASTOMOSI NOS
56.74	URETERONEOCYSTOSTOMY

Table 5.25 Other Major Surgery for Sampling	
Code	Shortened Description
56.75	TRANSURETEROURETEROSTOMY
56.79	URETERAL ANASTOMOSIS NEC
57.6	PARTIAL CYSTECTOMY
57.71	RADICAL CYSTECTOMY
57.79	TOTAL CYSTECTOMY NEC
57.81	SUTURE BLADDER LACERAT
57.82	CYSTOSTOMY CLOSURE
57.83	ENTEROVESICO FIST REPAIR
57.84	VESIC FISTULA REPAIR NEC
57.85	CYSTOURETHROPLASTY
57.86	BLADDER EXSTROPHY REPAIR
57.87	BLADDER RECONSTRUCTION
57.88	BLADDER ANASTOMOSIS NEC
57.89	BLADDER REPAIR NEC
59.00	RETROPERIT DISSECT NOS
59.02	PERIREN ADHESIOLYS NEC
59.09	PERIREN/URETER INCIS NEC
60.3	SUPRAPUBIC PROSTATECTOMY
60.4	RETROPUBIC PROSTATECTOMY
60.5	RADICAL PROSTATECTOMY
65.22	OVARIAN WEDGE RESECTION
65.29	LOCAL DESTR OVA LES NEC
65.39	OTH UNILAT OOPHORECTOMY
65.49	OTH UNI SALPINGO-OOPHOR
65.51	OTH REMOVE BOTH OVARIES
65.52	OTH REMOVE REMAIN OVARY
65.61	OTH REMOVE OVARIES/TUBES
65.62	OTH REMOVE REM OVA/TUBE
66.4	TOTAL UNILAT SALPINGECT
66.51	REMOVE BOTH FALLOP TUBES
66.52	REMOVE SOLITARY FAL TUBE
66.61	DESTROY FALLOP TUBE LES
66.62	REMOV TUBE & ECTOP PREG
66.63	BILAT PART SALPINGEC NOS
66.69	PARTIAL SALPINGECTOM NEC
81.40	REPAIR OF HIP, NEC
81.53	REVISE HIP REPLACEMT NOS
81.55	REVISE KNEE REPLACE NOS

Last Updated: Version 3.2

Table 6.1 Asthma	
Code	Shortened Description
493.00	EXTRINSIC ASTHMA NOS
493.01	EXT ASTHMA W STATUS ASTH

Table 6.1 Asthma	
Code	Shortened Description
493.02	EXT ASTHMA W(ACUTE) EXAC
493.10	INTRINSIC ASTHMA NOS
493.11	INT ASTHMA W STATUS ASTH
493.12	INT ASTHMA W (AC) EXAC
493.81	EXERCISE IND BRONCHOSPASM
493.82	COUGH VARIANT ASTHMA
493.90	ASTHMA NOS
493.91	ASTHMA W STATUS ASTHMAT
493.92	ASTHMA NOS W (AC) EXAC

Last Updated: Version 3.2

Table 7.01 Mental Disorders	
Code	Shortened Description
290.0	SENILE DEMENTIA UNCOMP
290.10	PRESENILE DEMENTIA
290.11	PRESENILE DELIRIUM
290.12	PRESENILE DELUSION
290.13	PRESENILE DEPRESSION
290.20	SENILE DELUSION
290.21	SENILE DEPRESSIVE
290.3	SENILE DELIRIUM
290.40	VASCULAR DEMENTIA,UNCOMP
290.41	VASC DEMENTIA W DELIRIUM
290.42	VASC DEMENTIA W DELUSION
290.43	VASC DEMENTIA W DEPRESSN
290.8	SENILE PSYCHOSIS NEC
290.9	SENILE PSYCHOT COND NOS
291.0	DELIRIUM TREMENS
291.1	ALCOHOL AMNESTIC DISORDR
291.2	ALCOHOL PERSIST DEMENTIA
291.3	ALCOH PSY DIS W HALLUCIN
291.4	PATHOLOGIC ALCOHOL INTOX
291.5	ALCOH PSYCH DIS W DELUS
291.81	ALCOHOL WITHDRAWAL
291.82	ALCOH INDUCE SLEEP DISOR
291.89	ALCOHOL MENTAL DISOR NEC
291.9	ALCOHOL MENTAL DISOR NOS
292.0	DRUG WITHDRAWAL
292.11	DRUG PSYCH DISOR W DELUS
292.12	DRUG PSY DIS W HALLUCIN
292.2	PATHOLOGIC DRUG INTOX
292.81	DRUG-INDUCED DELIRIUM
292.82	DRUG PERSISTING DEMENTIA

Table 7.01 Mental Disorders	
Code	Shortened Description
292.83	DRUG PERSIST AMNESTIC DIS
292.84	DRUG-INDUCED MOOD DISORD
292.85	DRUG INDUCED SLEEP DISOR
292.89	DRUG MENTAL DISORDER NEC
292.9	DRUG MENTAL DISORDER NOS
293.0	DELIRIUM D/T OTHER COND
293.1	SUBACUTE DELIRIUM
293.81	PSY DIS W DELUS OTH DIS
293.82	PSY DIS W HALLUC OTH DIS
293.83	MOOD DISORDER OTHER DIS
293.84	ANXIETY DISORDER OTH DIS
293.89	TRANSIENT MENTAL DIS NEC
293.9	TRANSIENT MENTAL DIS NOS
294.0	AMNESTIC DISORD OTH DIS
294.10	DEMENTIA W/O BEHAV DIST
294.11	DEMENTIA W BEHAVIOR DIST
294.8	MENTAL DISOR NEC OTH DIS
294.9	MENTAL DISOR NOS OTH DIS
295.00	SIMPL SCHIZOPHREN-UNSPEC
295.01	SIMPL SCHIZOPHREN-SUBCHR
295.02	SIMPLE SCHIZOPHREN-CHR
295.03	SIMP SCHIZ-SUBCHR/EXACER
295.04	SIMPL SCHIZO-CHR/EXACERB
295.05	SIMPL SCHIZOPHREN-REMISS
295.10	HEBEPHRENIA-UNSPEC
295.11	HEBEPHRENIA-SUBCHRONIC
295.12	HEBEPHRENIA-CHRONIC
295.13	HEBEPHREN-SUBCHR/EXACERB
295.14	HEBEPHRENIA-CHR/EXACERB
295.15	HEBEPHRENIA-REMISSION
295.20	CATATONIA-UNSPEC
295.21	CATATONIA-SUBCHRONIC
295.22	CATATONIA-CHRONIC
295.23	CATATONIA-SUBCHR/EXACERB
295.24	CATATONIA-CHR/EXACERB
295.25	CATATONIA-REMISSION
295.30	PARANOID SCHIZO-UNSPEC
295.31	PARANOID SCHIZO-SUBCHR
295.32	PARANOID SCHIZO-CHRONIC
295.33	PARAN SCHIZO-SUBCHR/EXAC
295.34	PARAN SCHIZO-CHR/EXACERB
295.35	PARANOID SCHIZO-REMISS
295.40	SCHIZOPHRENIFORM DIS NOS
295.41	SCHIZOPHRENIC DIS-SUBCHR

Table 7.01 Mental Disorders	
Code	Shortened Description
295.42	SCHIZOPHREN DIS-CHRONIC
295.43	SCHIZO DIS-SUBCHR/EXACER
295.44	SCHIZOPHR DIS-CHR/EXACER
295.45	SCHIZOPHRENIC DIS-REMISS
295.50	LATENT SCHIZOPHREN-UNSP
295.51	LAT SCHIZOPHREN-SUBCHR
295.52	LATENT SCHIZOPHREN-CHR
295.53	LAT SCHIZO-SUBCHR/EXACER
295.54	LATENT SCHIZO-CHR/EXACER
295.55	LAT SCHIZOPHREN-REMISS
295.60	SCHIZOPHR DIS RESID NOS
295.61	SCHIZOPH DIS RESID-SUBCH
295.62	SCHIZOPHR DIS RESID-CHR
295.63	SCHIZO RESID SUBCHR/EXAC
295.64	SCHIZOPH RESID-CHRO/EXAC
295.65	SCHIZOPH DIS RESID-REMIS
295.70	SCHIZOAFFECTIVE DIS NOS
295.71	SCHIZOAFFECTV DIS-SUBCHR
295.72	SCHIZOAFFECTIVE DIS-CHR
295.73	SCHIZOAF D IS-SUBCH/EXAC
295.74	SCHIZOAF FTV DIS-CHR/EXAC
295.75	SCHIZOAFFECTVE DIS-REMIS
295.80	SCHIZOPHRENIA NEC-UNSPEC
295.81	SCHIZOPHRENIA NEC-SUBCHR
295.82	SCHIZOPHRENIA NEC-CHR
295.83	SCHIZO NEC-SUBCHR/EXACER
295.84	SCHIZO NEC-CHR/EXACERB
295.85	SCHIZOPHRENIA NEC-REMISS
295.90	SCHIZOPHRENIA NOS-UNSPEC
295.91	SCHIZOPHRENIA NOS-SUBCHR
295.92	SCHIZOPHRENIA NOS-CHR
295.93	SCHIZO NOS-SUBCHR/EXACER
295.94	SCHIZO NOS-CHR/EXACERB
295.95	SCHIZOPHRENIA NOS-REMISS
296.00	BIPOL I SINGLE MANIC NOS
296.01	BIPOL I SINGLE MANC-MILD
296.02	BIPOL I SINGLE MANIC-MOD
296.03	BIPOL I SING-SEV W/O PSY
296.04	BIPO I SIN MAN-SEV W PSY
296.05	BIPOL I SING MAN REM NOS
296.06	BIPOL I SINGLE MANIC REM
296.10	RECUR MANIC DIS-UNSPEC
296.11	RECUR MANIC DIS-MILD
296.12	RECUR MANIC DIS-MOD

Table 7.01 Mental Disorders	
Code	Shortened Description
296.13	RECUR MANIC DIS-SEVERE
296.14	RECUR MANIC-SEV W PSYCHO
296.15	RECUR MANIC-PART REMISS
296.16	RECUR MANIC-FULL REMISS
296.20	DEPRESS PSYCHOSIS-UNSPEC
296.21	DEPRESS PSYCHOSIS-MILD
296.22	DEPRESSIVE PSYCHOSIS-MOD
296.23	DEPRESS PSYCHOSIS-SEVERE
296.24	DEPR PSYCHOS-SEV W PSYCH
296.25	DEPR PSYCHOS-PART REMISS
296.26	DEPR PSYCHOS-FULL REMISS
296.30	RECURR DEPR PSYCHOS-UNSP
296.31	RECURR DEPR PSYCHOS-MILD
296.32	RECURR DEPR PSYCHOS-MOD
296.33	RECUR DEPR PSYCH-SEVERE
296.34	REC DEPR PSYCH-PSYCHOTIC
296.35	RECUR DEPR PSYC-PART REM
296.36	RECUR DEPR PSYC-FULL REM
296.40	BIPOL I CURRNT MANIC NOS
296.41	BIPOL I CURNT MANIC-MILD
296.42	BIPOL I CURRNT MANIC-MOD
296.43	BIPOL I MANC-SEV W/O PSY
296.44	BIPOL I MANIC-SEV W PSY
296.45	BIPOL I CUR MAN PART REM
296.46	BIPOL I CUR MAN FULL REM
296.50	BIPOL I CUR DEPRES NOS
296.51	BIPOL I CUR DEPRESS-MILD
296.52	BIPOL I CUR DEPRESS-MOD
296.53	BIPOL I CURR DEP W/O PSY
296.54	BIPOL I CURRNT DEP W PSY
296.55	BIPOL I CUR DEP REM NOS
296.56	BIPOL I CURRNT DEP REMIS
296.60	BIPOL I CURRNT MIXED NOS
296.61	BIPOL I CURRNT MIX-MILD
296.62	BIPOL I CURRNT MIXED-MOD
296.63	BIPOL I CUR MIX W/O PSY
296.64	BIPOL I CUR MIXED W PSY
296.65	BIPOL I CUR MIX-PART REM
296.66	BIPOL I CUR MIXED REMISS
296.7	BIPOLOR I CURRENT NOS
296.80	BIPOLAR DISORDER NOS
296.81	ATYPICAL MANIC DISORDER
296.82	ATYPICAL DEPRESSIVE DIS
296.89	BIPOLAR DISORDER NEC

Table 7.01 Mental Disorders	
Code	Shortened Description
296.90	EPISODIC MOOD DISORD NOS
296.99	EPISODIC MOOD DISORD NEC
297.0	PARANOID STATE, SIMPLE
297.1	DELUSIONAL DISORDER
297.2	PARAPHRENIA
297.3	SHARED PSYCHOTIC DISORD
297.8	PARANOID STATES NEC
297.9	PARANOID STATE NOS
298.0	REACT DEPRESS PSYCHOSIS
298.1	EXCITATIV TYPE PSYCHOSIS
298.2	REACTIVE CONFUSION
298.3	ACUTE PARANOID REACTION
298.4	PSYCHOGEN PARANOID PSYCH
298.8	REACT PSYCHOSIS NEC/NOS
298.9	PSYCHOSIS NOS
299.00	AUTISTIC DISORD-CURRENT
299.01	AUTISTIC DISORD-RESIDUAL
299.10	CHILDHD DISINTEGR-ACTIVE
299.11	CHILDHD DISINTEGR-RESID
299.80	PERVASV DEV DIS-CUR NEC
299.81	PERVASV DEV DIS-RES NEC
299.90	PERVASV DEV DIS-CUR NOS
299.91	PERVASV DEV DIS-RES NOS
300.00	ANXIETY STATE NOS
300.01	PANIC DIS W/O AGORPHOBIA
300.02	GENERALIZED ANXIETY DIS
300.09	ANXIETY STATE NEC
300.10	HYSTERIA NOS
300.11	CONVERSION DISORDER
300.12	DISSOCIATIVE AMNESIA
300.13	DISSOCIATIVE FUGUE
300.14	DISSOCIATVE IDENTITY DIS
300.15	DISSOCIATIVE REACT NOS
300.16	FACTITIOUS DIS W SYMPTOM
300.19	FACTITIOUS ILL NEC/NOS
300.20	PHOBIA NOS
300.21	AGORAPHOBIA W PANIC DIS
300.22	AGORAPHOBIA W/O PANIC
300.23	SOCIAL PHOBIA
300.29	ISOLATED/SPEC PHOBIA NEC
300.3	OBSESSIVE-COMPULSIVE DIS
300.4	DYSTHYMIC DISORDER
300.5	NEURASTHENIA
300.6	DEPERSONALIZATION DISORD

Table 7.01 Mental Disorders	
Code	Shortened Description
300.7	HYPOCHONDRIASIS
300.81	SOMATIZATION DISORDER
300.82	UNDIFF SOMATOFORM DISRDR
300.89	SOMATOFORM DISORDERS NEC
300.9	NONPSYCHOTIC DISORD NOS
301.0	PARANOID PERSONALITY
301.10	AFFECTIV PERSONALITY NOS
301.11	CHRONIC HYPOMANIC PERSON
301.12	CHR DEPRESSIVE PERSON
301.13	CYCLOTHYMIC DISORDER
301.20	SCHIZOID PERSONALITY NOS
301.21	INTROVERTED PERSONALITY
301.22	SCHIZOTYPAL PERSON DIS
301.3	EXPLOSIVE PERSONALITY
301.4	OBSESSIVE-COMPULSIVE DIS
301.50	HISTRIONIC PERSON NOS
301.51	CHR FACTITIOUS ILLNESS
301.59	HISTRIONIC PERSON NEC
301.6	DEPENDENT PERSONALITY
301.7	ANTISOCIAL PERSONALITY
301.81	NARCISSISTIC PERSONALITY
301.82	AVOIDANT PERSONALITY DIS
301.83	BORDERLINE PERSONALITY
301.84	PASSIVE-AGGRESSIV PERSON
301.89	PERSONALITY DISORDER NEC
301.9	PERSONALITY DISORDER NOS
302.0	EGO-DYSTONIC SEX ORIENT
302.1	ZOOPHILIA
302.2	PEDOPHILIA
302.3	TRANSVESTIC FETISHISM
302.4	EXHIBITIONISM
302.50	TRANS-SEXUALISM NOS
302.51	TRANS-SEXUALISM, ASEXUAL
302.52	TRANS-SEXUAL, HOMOSEXUAL
302.53	TRANS-SEX, HETEROSEXUAL
302.6	GENDR IDENTITY DIS-CHILD
302.70	PSYCHOSEXUAL DYSFUNC NOS
302.71	HYPOACTIVE SEX DESIRE
302.72	INHIBITED SEX EXCITEMENT
302.73	FEMALE ORGASMIC DISORDER
302.74	MALE ORGASMIC DISORDER
302.75	PREMATURE EJACULATION
302.76	DYSPAREUNIA, PSYCHOGENIC
302.79	PSYCHOSEXUAL DYSFUNC NEC

Table 7.01 Mental Disorders	
Code	Shortened Description
302.81	FETISHISM
302.82	VOYEURISM
302.83	SEXUAL MASOCHISM
302.84	SEXUAL SADISM
302.85	GEND IDEN DIS, ADOL/ADULT
302.89	PSYCHOSEXUAL DIS NEC
302.9	PSYCHOSEXUAL DIS NOS
306.0	PSYCHOGEN MUSCULSKEL DIS
306.1	PSYCHOGENIC RESPIR DIS
306.2	PSYCHOGEN CARDIOVASC DIS
306.3	PSYCHOGENIC SKIN DISEASE
306.4	PSYCHOGENIC GI DISEASE
306.50	PSYCHOGENIC GU DIS NOS
306.51	PSYCHOGENIC VAGINISMUS
306.52	PSYCHOGENIC DYSMENORRHEA
306.53	PSYCHOGENIC DYSURIA
306.59	PSYCHOGENIC GU DIS NEC
306.6	PSYCHOGEN ENDOCRINE DIS
306.7	PSYCHOGENIC SENSORY DIS
306.8	PSYCHOGENIC DISORDER NEC
306.9	PSYCHOGENIC DISORDER NOS
307.0	STUTTERING
307.1	ANOREXIA NERVOSA
307.20	TIC DISORDER NOS
307.21	TRANSIENT TIC DISORDER
307.22	CHR MOTOR/VOCAL TIC DIS
307.23	TOURETTE'S DISORDER
307.3	STEREOTYPIC MOVEMENT DIS
307.40	NONORGANIC SLEEP DIS NOS
307.41	TRANSIENT INSOMNIA
307.42	PERSISTENT INSOMNIA
307.43	TRANSIENT HYPERSOMNIA
307.44	PERSISTENT HYPERSOMNIA
307.45	NONORGANIC CIRCADIAN RHY
307.46	SLEEP AROUSAL DISORDER
307.47	SLEEP STAGE DYSFUNC NEC
307.48	REPETIT SLEEP INTRUSION
307.49	NONORGANIC SLEEP DIS NEC
307.50	EATING DISORDER NOS
307.51	BULIMIA NERVOSA
307.52	PICA
307.53	RUMINATION DISORDER
307.54	PSYCHOGENIC VOMITING
307.59	EATING DISORDER NEC

Table 7.01 Mental Disorders	
Code	Shortened Description
307.6	ENURESIS
307.7	ENCOPRESIS
307.80	PSYCHOGENIC PAIN NOS
307.81	TENSION HEADACHE
307.89	PSYCHOGENIC PAIN NEC
307.9	SPECIAL SYMPTOM NEC/NOS
308.0	STRESS REACT, EMOTIONAL
308.1	STRESS REACTION, FUGUE
308.2	STRESS REACT, PSYCHOMOT
308.3	ACUTE STRESS REACT NEC
308.4	STRESS REACT, MIXED DIS
308.9	ACUTE STRESS REACT NOS
309.0	ADJUSTMNT DIS W DEPRESSN
309.1	PROLONG DEPRESSIVE REACT
309.21	SEPARATION ANXIETY
309.22	EMANCIPATION DISORDER
309.23	ACADEMIC/WORK INHIBITION
309.24	ADJUSTMENT DIS W ANXIETY
309.28	ADJUST DIS W ANXIETY/DEP
309.29	ADJ REACT-EMOTION NEC
309.3	ADJUST DISOR/DIS CONDUCT
309.4	ADJ DIS-EMOTION/CONDUCT
309.81	POSTTRAUMATIC STRESS DIS
309.82	ADJUST REACT-PHYS SYMPT
309.83	ADJUST REACT-WITHDRAWAL
309.89	ADJUSTMENT REACTION NEC
309.9	ADJUSTMENT REACTION NOS
310.0	FRONTAL LOBE SYNDROME
310.1	PERSONALITY CHG OTH DIS
310.2	POSTCONCUSSION SYNDROME
310.8	NONPSYCHOT BRAIN SYN NEC
310.9	NONPSYCHOT BRAIN SYN NOS
311	DEPRESSIVE DISORDER NEC
312.00	UNSOCIAL AGGRESS-UNSPEC
312.01	UNSOCIAL AGGRESSION-MILD
312.02	UNSOCIAL AGGRESSION-MOD
312.03	UNSOCIAL AGGRESS-SEVERE
312.10	UNSOCIAL UNAGGRESS-UNSP
312.11	UNSOCIAL UNAGGRESS-MILD
312.12	UNSOCIAL UNAGGRESS-MOD
312.13	UNSOCIAL UNAGGR-SEVERE
312.20	SOCIAL CONDUCT DIS-UNSP
312.21	SOCIAL CONDUCT DIS-MILD
312.22	SOCIAL CONDUCT DIS-MOD

Table 7.01 Mental Disorders	
Code	Shortened Description
312.23	SOCIAL CONDUCT DIS-SEV
312.30	IMPULSE CONTROL DIS NOS
312.31	PATHOLOGICAL GAMBLING
312.32	KLEPTOMANIA
312.33	PYROMANIA
312.34	INTERMITT EXPLOSIVE DIS
312.35	ISOLATED EXPLOSIVE DIS
312.39	IMPULSE CONTROL DIS NEC
312.4	MIX DIS CONDUCT/EMOTION
312.81	CNDCT DSRDR CHLDHD ONST
312.82	CNDCT DSRDR ADLSCNT ONST
312.89	OTHER CONDUCT DISORDER
312.9	CONDUCT DISTURBANCE NOS
313.0	OVERANXIOUS DISORDER
313.1	MISERY & UNHAPPINESS DIS
313.21	SHYNESS DISORDER-CHILD
313.22	INTROVERTED DIS-CHILD
313.23	SELECTIVE MUTISM
313.3	RELATIONSHIP PROBLEMS
313.81	OPPOSITION DEFIANT DISOR
313.82	IDENTITY DISORDER
313.83	ACADEMIC UNDERACHIEVMENT
313.89	EMOTIONAL DIS CHILD NEC
313.9	EMOTIONAL DIS CHILD NOS
314.00	ATTN DEFIC NONHYPERACT
314.01	ATTN DEFICIT W HYPERACT
314.1	HYPERKINET W DEVEL DELAY
314.2	HYPERKINETIC CONDUCT DIS
314.8	OTHER HYPERKINETIC SYND
314.9	HYPERKINETIC SYND NOS
315.00	READING DISORDER NOS
315.01	ALEXIA
315.02	DEVELOPMENTAL DYSLEXIA
315.09	READING DISORDER NEC
315.1	MATHEMATICS DISORDER
315.2	OTH LEARNING DIFFICULTY
315.31	EXPRESSIVE LANGUAGE DIS
315.32	RECP-EXPRES LANGUAGE DIS
315.34	SPEECHDEL D/T HEAR LOSS
315.39	SPEECH/LANGUAGE DIS NEC
315.4	DEVEL COORDINATION DIS
315.5	MIXED DEVELOPMENT DIS
315.8	DEVELOPMENT DELAYS NEC
315.9	DEVELOPMENT DELAY NOS

Table 7.01 Mental Disorders	
Code	Shortened Description
316	PSYCHIC FACTOR W OTH DIS
317	MILD MENTAL RETARDATION
318.0	MOD MENTAL RETARDATION
318.1	SEVERE MENTAL RETARDAT
318.2	PROFOUND MENTAL RETARDAT
319	MENTAL RETARDATION NOS

Last Updated: Version 3.2

Table 7.02 Obstetrics	
Code	Shortened Description
638.0	ATTEM ABORT W PELVIC INF
638.1	ATTEM ABORT W HEMORRHAGE
638.2	ATTEM ABORT W PELV DAMAG
638.3	ATTEM ABORT W RENAL FAIL
638.4	ATTEM ABOR W METABOL DIS
638.5	ATTEM ABORTION W SHOCK
638.7	ATTEMP ABORT W COMPL NEC
638.8	ATTEMP ABORT W COMPL NOS
638.9	ATTEMPTED ABORT UNCOMPL
640.00	THREATENED ABORT-UNSPEC
640.01	THREATENED ABORT-DELIVER
640.80	HEM EARLY PREG NEC-UNSP
640.81	HEM EARLY PREG NEC-DELIV
640.90	HEMORR EARLY PREG-UNSPEC
640.91	HEM EARLY PREG-DELIVERED
641.00	PLACENTA PREVIA-UNSPEC
641.01	PLACENTA PREVIA-DELIVER
641.03	PLACENTA PREVIA-ANTEPART
641.10	PLACENTA PREV HEM-UNSPEC
641.11	PLACENTA PREV HEM-DELIV
641.13	PLACEN PREV HEM-ANTEPART
641.20	PREM SEPAR PLACEN-UNSPEC
641.21	PREM SEPAR PLACEN-DELIV
641.23	PREM SEPAR PLAC-ANTEPART
641.30	COAG DEF HEMORR-UNSPEC
641.31	COAG DEF HEMORR-DELIVER
641.33	COAG DEF HEMORR-ANTEPART
641.80	ANTEPART HEM NEC-UNSPEC
641.81	ANTEPARTUM HEM NEC-DELIV
641.83	ANTEPART HEM NEC-ANTEPAR
641.90	ANTEPART HEM NOS-UNSPEC
641.91	ANTEPARTUM HEM NOS-DELIV
641.93	ANTEPART HEM NOS-ANTEPAR

Table 7.02 Obstetrics	
Code	Shortened Description
642.00	ESSEN HYPERTEN PREG-UNSP
642.01	ESSEN HYPERTEN-DELIVERED
642.02	ESSEN HYPERTEN-DEL W P/P
642.03	ESSEN HYPERTEN-ANTEPART
642.04	ESSEN HYPERTEN-POSTPART
642.10	RENAL HYPERTEN PREG-UNSP
642.11	RENAL HYPERTEN PG-DELIV
642.12	RENAL HYPERTEN-DEL P/P
642.13	RENAL HYPERTEN-ANTEPART
642.14	RENAL HYPERTEN-POSTPART
642.20	OLD HYPERTEN PREG-UNSPEC
642.21	OLD HYPERTEN NEC-DELIVER
642.22	OLD HYPERTEN-DELIV W P/P
642.23	OLD HYPERTEN NEC-ANTEPAR
642.24	OLD HYPERTEN NEC-POSTPAR
642.30	TRANS HYPERTEN PREG-UNSP
642.31	TRANS HYPERTEN-DELIVERED
642.32	TRANS HYPERTEN-DEL W P/P
642.33	TRANS HYPERTEN-ANTEPART
642.34	TRANS HYPERTEN-POSTPART
642.40	MILD/NOS PREECLAMP-UNSP
642.41	MILD/NOS PREECLAMP-DELIV
642.42	MILD PREECLAMP-DEL W P/P
642.43	MILD/NOS PREECLAMP-ANTEP
642.44	MILD/NOS PREECLAMP-P/P
642.50	SEVERE PREECLAMP-UNSPEC
642.51	SEVERE PREECLAMP-DELIVER
642.52	SEV PREECLAMP-DEL W P/P
642.53	SEV PREECLAMP-ANTEPARTUM
642.54	SEV PREECLAMP-POSTPARTUM
642.60	ECLAMPSIA-UNSPECIFIED
642.61	ECLAMPSIA-DELIVERED
642.62	ECLAMPSIA-DELIV W P/P
642.63	ECLAMPSIA-ANTEPARTUM
642.64	ECLAMPSIA-POSTPARTUM
642.70	TOX W OLD HYPERTEN-UNSP
642.71	TOX W OLD HYPERTEN-DELIV
642.72	TOX W OLD HYP-DEL W P/P
642.73	TOX W OLD HYPER-ANTEPART
642.74	TOX W OLD HYPER-POSTPART
642.90	HYPERTEN PREG NOS-UNSPEC
642.91	TOX W OLD HYP-DEL W P/P
642.92	HYPERTENS NOS-DEL W P/P
642.93	HYPERTENS NOS-ANTEPARTUM

Table 7.02 Obstetrics	
Code	Shortened Description
642.94	HYPERTENS NOS-POSTPARTUM
643.00	MILD HYPEREM GRAV-UNSPEC
643.01	MILD HYPEREM GRAV-DELIV
643.03	MILD HYPEREMESIS-ANTEPAR
643.10	HYPEREM W METAB DIS-UNSP
643.11	HYPEREM W METAB DIS-DEL
643.13	HYPEREM W METAB-ANTEPART
643.20	LATE VOMIT OF PREG-UNSP
643.21	LATE VOMIT OF PREG-DELIV
643.23	LATE VOMIT PREG-ANTEPART
643.80	VOMIT COMPL PREG-UNSPEC
643.81	VOMIT COMPL PREG-DELIVER
643.83	VOMIT COMPL PREG-ANTEPAR
643.90	VOMIT OF PREG NOS-UNSPEC
643.91	VOMIT OF PREG NOS-DELIV
643.93	VOMIT OF PG NOS-ANTEPART
644.00	THREAT PREM LABOR-UNSP
644.03	THRT PREM LABOR-ANTEPART
644.10	THREAT LABOR NEC-UNSPEC
644.13	THREAT LABOR NEC-ANTEPAR
644.20	EARLY ONSET DELIV-UNSPEC
644.21	EARLY ONSET DELIVERY-DEL
645.10	POST TERM PREG-UNSP
645.11	POST TERM PREG-DEL
645.13	POST TERM PREG-ANTEPAR
645.20	PROLONGED PREG-UNSP
645.21	PROLONGED PREG-DEL
645.23	PROLONGED PREG-ANTEPAR
646.00	PAPYRACEOUS FETUS-UNSPEC
646.01	PAPYRACEOUS FETUS-DELIV
646.03	PAPYRACEOUS FET-ANTEPAR
646.10	EDEMA IN PREG-UNSPEC
646.11	EDEMA IN PREG-DELIVERED
646.12	EDEMA IN PREG-DEL W P/P
646.13	EDEMA IN PREG-ANTEPARTUM
646.14	EDEMA IN PREG-POSTPARTUM
646.20	RENAL DIS PREG NOS-UNSP
646.21	RENAL DIS NOS-DELIVERED
646.22	RENAL DIS NOS-DEL W P/P
646.23	RENAL DIS NOS-ANTEPARTUM
646.24	RENAL DIS NOS-POSTPARTUM
646.30	HABITUAL ABORTER-UNSPEC
646.31	HABITUAL ABORTER-DELIVER
646.33	HABITUAL ABORT-ANTEPART

Table 7.02 Obstetrics	
Code	Shortened Description
646.40	NEURITIS OF PREG-UNSPEC
646.41	NEURITIS-DELIVERED
646.42	NEURITIS-DELIVERED W P/P
646.43	NEURITIS OF PREG-ANTEPAR
646.44	NEURITIS OF PREG-POSTPAR
646.50	BACTERIURIA PREG-UNSPEC
646.51	ASYM BACTERIURIA-DELIVER
646.52	ASY BACTERURIA-DEL W P/P
646.53	ASY BACTERIURIA-ANTEPART
646.54	ASY BACTERIURIA-POSTPART
646.60	GU INFECT IN PREG-UNSPEC
646.61	GU INFECTION-DELIVERED
646.62	GU INFECTION-DELIV W P/P
646.63	GU INFECTION-ANTEPARTUM
646.64	GU INFECTION-POSTPARTUM
646.70	LIVER DIS IN PREG-UNSPEC
646.71	LIVER DISORDER-DELIVERED
646.73	LIVER DISORDER-ANTEPART
646.80	PREG COMPL NEC-UNSPEC
646.81	PREG COMPL NEC-DELIVERED
646.82	PREG COMPL NEC-DEL W P/P
646.83	PREG COMPL NEC-ANTEPART
646.84	PREG COMPL NEC-POSTPART
646.90	PREG COMPL NOS-UNSPEC
646.91	PREG COMPL NOS-DELIVERED
646.93	PREG COMPL NOS-ANTEPART
647.00	SYPHILIS IN PREG-UNSPEC
647.01	SYPHILIS-DELIVERED
647.02	SYPHILIS-DELIVERED W P/P
647.03	SYPHILIS-ANTEPARTUM
647.04	SYPHILIS-POSTPARTUM
647.10	GONORRHEA IN PREG-UNSPEC
647.11	GONORRHEA-DELIVERED
647.12	GONORRHEA-DELIVER W P/P
647.13	GONORRHEA-ANTEPARTUM
647.14	GONORRHEA-POSTPARTUM
647.20	OTHER VD IN PREG-UNSPEC
647.21	OTHER VD-DELIVERED
647.22	OTHER VD-DELIVERED W P/P
647.23	OTHER VD-ANTEPARTUM
647.24	OTHER VD-POSTPARTUM
647.30	TB IN PREG-UNSPECIFIED
647.31	TUBERCULOSIS-DELIVERED
647.32	TUBERCULOSIS-DELIV W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
647.33	TUBERCULOSIS-ANTEPARTUM
647.34	TUBERCULOSIS-POSTPARTUM
647.40	MALARIA IN PREG-UNSPEC
647.41	MALARIA-DELIVERED
647.42	MALARIA-DELIVERED W P/P
647.43	MALARIA-ANTEPARTUM
647.44	MALARIA-POSTPARTUM
647.50	RUBELLA IN PREG-UNSPEC
647.51	RUBELLA-DELIVERED
647.52	RUBELLA-DELIVERED W P/P
647.53	RUBELLA-ANTEPARTUM
647.54	RUBELLA-POSTPARTUM
647.60	OTH VIRUS IN PREG-UNSPEC
647.61	OTH VIRAL DIS-DELIVERED
647.62	OTH VIRAL DIS-DEL W P/P
647.63	OTH VIRAL DIS-ANTEPARTUM
647.64	OTH VIRAL DIS-POSTPARTU
647.80	INF DIS IN PREG NEC-UNSP
647.81	INFECT DIS NEC-DELIVERED
647.82	INFECT DIS NEC-DEL W P/P
647.83	INFECT DIS NEC-ANTEPART
647.84	INFECT DIS NEC-POSTPART
647.90	INFECT IN PREG NOS-UNSP
647.91	INFECT NOS-DELIVERED
647.92	INFECT NOS-DELIVER W P/P
647.93	INFECT NOS-ANTEPARTUM
647.94	INFECT NOS-POSTPARTUM
648.00	DIABETES IN PREG-UNSPEC
648.01	DIABETES-DELIVERED
648.02	DIABETES-DELIVERED W P/P
648.10	THYROID DYSFUN PREG-UNSP
648.11	THYROID DYSFUNC-DELIVER
648.12	THYROID DYSFUN-DEL W P/P
648.20	ANEMIA IN PREG-UNSPEC
648.21	ANEMIA-DELIVERED
648.22	ANEMIA-DELIVERED W P/P
648.30	DRUG DEPEND PREG-UNSPEC
648.31	DRUG DEPENDENCE-DELIVER
648.32	DRUG DEPENDEN-DEL W P/P
648.40	MENTAL DIS PREG-UNSPEC
648.41	MENTAL DISORDER-DELIVER
648.42	MENTAL DIS-DELIV W P/P
648.50	CONGEN CV DIS PREG-UNSP
648.51	CONGEN CV DIS-DELIVERED

Table 7.02 Obstetrics	
Code	Shortened Description
648.52	CONGEN CV DIS-DEL W P/P
648.60	CV DIS NEC PREG-UNSPEC
648.61	CV DIS NEC PREG-DELIVER
648.62	CV DIS NEC-DELIVER W P/P
648.70	BONE DISORD IN PREG-UNSP
648.71	BONE DISORDER-DELIVERED
648.72	BONE DISORDER-DEL W P/P
648.80	ABN GLUCOSE IN PREG-UNSP
648.81	ABN GLUCOSE TOLER-DELIV
648.82	ABN GLUCOSE-DELIV W P/P
648.90	OTH CURR COND PREG-UNSP
648.91	OTH CURR COND-DELIVERE
648.92	OTH CURR COND-DEL W P/P
649.00	TOBACCO USE DISORD-UNSPEC
649.01	TOBACCO USE DISOR-DELIV
649.02	TOBACCO USE DIS-DEL-P/P
649.10	OBESITY-UNSPECIFIED
649.11	OBESITY-DELIVERED
649.12	OBESITY-DELIVERED W P/P
649.20	BARIATRIC SURG STAT-UNSP
649.21	BARIATRIC SURG STAT-DEL
649.22	BARIATRIC SURG-DEL W P/P
649.30	COAGULATION DEF-UNSPEC
649.31	COAGULATION DEF-DELIV
649.32	COAGULATN DEF-DEL W P/P
649.40	EPILEPSY-UNSPECIFIED
649.41	EPILEPSY-DELIVERED
649.42	EPILEPSY-DELIVERED W P/P
649.50	SPOTTING-UNSPECIFIED
649.51	SPOTTING-DELIVERED
649.53	SPOTTING-ANTEPARTUM
649.60	UTERINE SIZE DESCRP-UNSP
649.61	UTERINE SIZE DESCREP-DEL
649.62	UTERINE SIZE-DEL W P/P
650	NORMAL DELIVERY
651.00	TWIN PREGNANCY-UNSPEC
651.01	TWIN PREGNANCY-DELIVERED
651.03	TWIN PREGNANCY-ANTEPART
651.10	TRIPLET PREGNANCY-UNSPEC
651.11	TRIPLET PREGNANCY-DELIV
651.13	TRIPLET PREG-ANTEPARTUM
651.20	QUADRUPLET PREG-UNSPEC
651.21	QUADRUPLET PREG-DELIVER
651.23	QUADRUPLET PREG-ANTEPART

Table 7.02 Obstetrics	
Code	Shortened Description
651.30	TWINS W FETAL LOSS-UNSP
651.31	TWINS W FETAL LOSS-DEL
651.33	TWINS W FETAL LOSS-ANTE
651.40	TRIPLETS W FET LOSS-UNSP
651.41	TRIPLETS W FET LOSS-DEL
651.43	TRIPLETS W FET LOSS-ANTE
651.50	QUADS W FETAL LOSS-UNSP
651.51	QUADS W FETAL LOSS-DEL
651.53	QUADS W FETAL LOSS-ANTE
651.60	MULT GES W FET LOSS-UNSP
651.61	MULT GES W FET LOSS-DEL
651.63	MULT GES W FET LOSS-ANTE
651.70	MUL GEST-FET REDUCT UNSP
651.71	MULT GEST-FET REDUCT DEL
651.73	MUL GEST-FET REDUCT ANTE
651.80	MULTI GESTAT NEC-UNSPEC
651.81	MULTI GESTAT NEC-DELIVER
651.83	MULTI GEST NEC-ANTEPART
651.90	MULTI GESTAT NOS-UNSPEC
651.91	MULT GESTATION NOS-DELIV
651.93	MULTI GEST NOS-ANTEPART
652.00	UNSTABLE LIE-UNSPECIFIED
652.01	UNSTABLE LIE-DELIVERED
652.03	UNSTABLE LIE-ANTEPARTUM
652.10	CEPHALIC VERS NOS-UNSPEC
652.11	CEPHALIC VERS NOS-DELIV
652.13	CEPHAL VERS NOS-ANTEPART
652.20	BREECH PRESENTAT-UNSPEC
652.21	BREECH PRESENTAT-DELIVER
652.23	BREECH PRESENT-ANTEPART
652.30	TRANSV/OBLIQ LIE-UNSPEC
652.31	TRANSVER/OBLIQ LIE-DELIV
652.33	TRANSV/OBLIQ LIE-ANTEPAR
652.40	FACE/BROW PRESENT-UNSPEC
652.41	FACE/BROW PRESENT-DELIV
652.43	FACE/BROW PRES-ANTEPART
652.50	HIGH HEAD AT TERM-UNSPEC
652.51	HIGH HEAD AT TERM-DELIV
652.53	HIGH HEAD TERM-ANTEPART
652.60	MULT GEST MALPRESEN-UNSP
652.61	MULT GEST MALPRES-DELIV
652.63	MULT GES MALPRES-ANTEPAR
652.70	PROLAPSED ARM-UNSPEC
652.71	PROLAPSED ARM-DELIVERED

Table 7.02 Obstetrics	
Code	Shortened Description
652.73	PROLAPSED ARM-ANTEPART
652.80	MALPOSITION NEC-UNSPEC
652.81	MALPOSITION NEC-DELIVER
652.83	MALPOSITION NEC-ANTEPART
652.90	MALPOSITION NOS-UNSPEC
652.91	MALPOSITION NOS-DELIVER
652.93	MALPOSITION NOS-ANTEPART
653.00	PELVIC DEFORM NOS-UNSPEC
653.01	PELVIC DEFORM NOS-DELIV
653.03	PELV DEFORM NOS-ANTEPART
653.10	CONTRACT PELV NOS-UNSPEC
653.11	CONTRACT PELV NOS-DELIV
653.13	CONTRAC PELV NOS-ANTEPAR
653.20	INLET CONTRACTION-UNSPEC
653.21	INLET CONTRACTION-DELIV
653.23	INLET CONTRACT-ANTEPART
653.30	OUTLET CONTRACTION-UNSP
653.31	OUTLET CONTRACTION-DELIV
653.33	OUTLET CONTRACT-ANTEPAR
653.40	FETOPELV DISPROP-UNSPEC
653.41	FETOPELV DISPROPOR-DELIV
653.43	FETOPELV DISPROP-ANTEPART
653.50	FETAL DISPROP NOS-UNSPEC
653.51	FETAL DISPROP NOS-DELIV
653.53	FETAL DISPRO NOS-ANTEPAR
653.60	HYDROCEPHAL FETUS-UNSPEC
653.61	HYDROCEPH FETUS-DELIVER
653.63	HYDROCEPH FETUS-ANTEPART
653.70	OTH ABN FET DISPROP-UNSP
653.71	OTH ABN FET DISPRO-DELIV
653.73	OTH ABN FET DISPRO-ANTEP
653.80	DISPROPORTION NEC-UNSPEC
653.81	DISPROPORTION NEC-DELIV
653.83	DISPROPOR NEC-ANTEPARTUM
653.90	DISPROPORTION NOS-UNSPEC
653.91	DISPROPORTION NOS-DELIV
653.93	DISPROPOR NOS-ANTEPARTUM
654.00	CONG ABN UTER PREG-UNSP
654.01	CONGEN ABN UTERUS-DELIV
654.02	CONG ABN UTER-DEL W P/P
654.03	CONGEN ABN UTER-ANTEPART
654.04	CONGEN ABN UTER-POSTPART
654.10	UTER TUMOR IN PREG-UNSP
654.11	UTERINE TUMOR-DELIVERED

Table 7.02 Obstetrics	
Code	Shortened Description
654.12	UTERINE TUMOR-DEL W P/P
654.13	UTERINE TUMOR-ANTEPARTUM
654.14	UTERINE TUMOR-POSTPARTUM
654.20	PREV C-DELIVERY UNSPEC
654.21	PREV C-DELIVERY-DELIVRD
654.23	PREV C-DELIVERY-ANTEPART
654.30	RETROVERT UTERUS-UNSPEC
654.31	RETROVERT UTERUS-DELIVER
654.32	RETROVERT UTER-DEL W P/P
654.33	RETROVERT UTER-ANTEPART
654.34	RETROVERT UTER-POSTPART
654.40	ABN GRAV UTERUS NEC-UNSP
654.41	ABN UTERUS NEC-DELIVERED
654.42	ABN UTERUS NEC-DEL W P/P
654.43	ABN UTERUS NEC-ANTEPART
654.44	ABN UTERUS NEC-POSTPART
654.50	CERV INCOMPET PREG-UNSP
654.51	CERVICAL INCOMPET-DELIV
654.52	CERV INCOMPET-DEL W P/P
654.53	CERV INCOMPET-ANTEPARTUM
654.54	CERV INCOMPET-POSTPARTUM
654.60	ABN CERVIX NEC PREG-UNSP
654.61	ABN CERVIX NEC-DELIVERED
654.62	ABN CERVIX NEC-DEL W P/P
654.63	ABN CERVIX NEC-ANTEPART
654.64	ABN CERVIX NEC-POSTPART
654.70	ABN VAGINA IN PREG-UNSP
654.71	ABNORM VAGINA-DELIVERED
654.72	ABNORM VAGINA-DEL W P/P
654.73	ABNORM VAGINA-ANTEPARTUM
654.74	ABNORM VAGINA-POSTPARTUM
654.80	ABN VULVA IN PREG-UNSPEC
654.81	ABNORMAL VULVA-DELIVERED
654.82	ABNORMAL VULVA-DEL W P/P
654.83	ABNORMAL VULVA-ANTEPART
654.84	ABNORMAL VULVA-POSTPART
654.90	ABN PEL NEC IN PREG-UNSP
654.91	ABN PELV ORG NEC-DELIVER
654.92	ABN PELV NEC-DELIV W P/P
654.93	ABN PELV ORG NEC-ANTEPAR
654.94	ABN PELV ORG NEC-POSTPAR
655.00	FETAL CNS MALFORM-UNSPEC
655.01	FETAL CNS MALFORM-DELIV
655.03	FETAL CNS MALFOR-ANTEPAR

Table 7.02 Obstetrics	
Code	Shortened Description
655.10	FETAL CHROMOS ABN-UNSPEC
655.11	FETAL CHROMOSO ABN-DELIV
655.13	FET CHROMO ABN-ANTEPART
655.20	FAMIL HEREDIT DIS-UNSPEC
655.21	FAMIL HEREDIT DIS-DELIV
655.23	FAMIL HEREDIT DIS-ANTEPART
655.30	FET DAMG D/T VIRUS-UNSP
655.31	FET DAMG D/T VIRUS-DELIV
655.33	FET DAMG D/T VIRUS-ANTEP
655.40	FET DAMG D/T DIS-UNSPEC
655.41	FET DAMG D/T DIS-DELIVER
655.43	FET DAMG D/T DIS-ANTEPAR
655.50	FETAL DAMG D/T DRUG-UNSP
655.51	FET DAMAG D/T DRUG-DELIV
655.53	FET DAMG D/T DRUG-ANTEPA
655.60	RADIAT FETAL DAMAG-UNSP
655.61	RADIAT FETAL DAMAG-DELIV
655.63	RADIAT FET DAMAG-ANTEPAR
655.70	DECREASE FETL MOVMT UNSP
655.71	DECREASE FETAL MOVMT DEL
655.73	DEC FETAL MOVMT ANTEPART
655.80	FETAL ABNORM NEC-UNSPEC
655.81	FETAL ABNORM NEC-DELIVER
655.83	FETAL ABNORM NEC-ANTEPAR
655.90	FETAL ABNORM NOS-UNSPEC
655.91	FETAL ABNORM NOS-DELIV
655.93	FETAL ABNORM NOS-ANTEPAR
656.00	FETAL-MATERNAL HEM-UNSPEC
656.01	FETAL-MATERNAL HEM-DELIV
656.03	FETAL-MATERNAL HEM-ANTEPAR
656.10	RH ISOIMMUNIZAT-UNSPEC
656.11	RH ISOIMMUNIZAT-DELIV
656.13	RH ISOIMMUNIZAT-ANTEPART
656.20	ABO ISOIMMUNIZATION-UNSPEC
656.21	ABO ISOIMMUNIZAT-DELIV
656.23	ABO ISOIMMUNIZAT-ANTEPAR
656.30	FETAL DISTRESS-UNSPEC
656.31	FETAL DISTRESS-DELIV
656.33	FETAL DISTRESS-ANTEPART
656.40	INTRAUTERINE DEATH-UNSPEC
656.41	INTRAUTER DEATH-DELIV
656.43	INTRAUTER DEATH-ANTEPART
656.50	POOR FETAL GROWTH-UNSPEC
656.51	POOR FETAL GROWTH-DELIV

Table 7.02 Obstetrics	
Code	Shortened Description
656.53	POOR FETAL GRTH-ANTEPART
656.60	EXCESS FETAL GRTH-UNSPEC
656.61	EXCESS FETAL GRTH-DELIV
656.63	EXCESS FET GRTH-ANTEPART
656.70	OTH PLACENT COND-UNSPEC
656.71	OTH PLACENT COND-DELIV
656.73	OTH PLACENT COND-ANTEPAR
656.80	FET/PLAC PROB NEC-UNSPEC
656.81	FET/PLAC PROB NEC-DELIV
656.83	FET/PLAC PROB NEC-ANTEPA
656.90	FET/PLAC PROB NOS-UNSPEC
656.91	FET/PLAC PROB NOS-DELIV
656.93	FET/PLAC PROB NOS-ANTEPA
657.00	POLYHYDRAMNIOS-UNSPEC
657.01	POLYHYDRAMNIOS-DELIV
657.03	POLYHYDRAMNIOS-ANTEPART
658.00	OLIGOHYDRAMNIOS-UNSPEC
658.01	OLIGOHYDRAMNIOS-DELIV
658.03	OLIGOHYDRAMNIOS-ANTEPAR
658.10	PREM RUPT MEMBRAN-UNSPEC
658.11	PREM RUPT MEMBRAN-DELIV
658.13	PREM RUPT MEMB-ANTEPART
658.20	PROLONG RUPT MEMB-UNSPEC
658.21	PROLONG RUPT MEMB-DELIV
658.23	PROLONG RUP MEMB-ANTEPAR
658.30	ARTIFIC RUPT MEMBR-UNSP
658.31	ARTIFIC RUPT MEMBR-DELIV
658.33	ARTIF RUPT MEMB-ANTEPART
658.40	AMNIOTIC INFECTION-UNSP
658.41	AMNIOTIC INFECTION-DELIV
658.43	AMNIOTIC INFECT-ANTEPART
658.80	AMNIOTIC PROB NEC-UNSPEC
658.81	AMNIOTIC PROB NEC-DELIV
658.83	AMNION PROB NEC-ANTEPART
658.90	AMNIOTIC PROB NOS-UNSPEC
658.91	AMNIOTIC PROB NOS-DELIV
658.93	AMNION PROB NOS-ANTEPART
659.00	FAIL MECHAN INDUCT-UNSP
659.01	FAIL MECH INDUCT-DELIVER
659.03	FAIL MECH INDUCT-ANTEPAR
659.10	FAIL INDUCTION NOS-UNSP
659.11	FAIL INDUCTION NOS-DELIV
659.13	FAIL INDUCT NOS-ANTEPART
659.20	PYREXIA IN LABOR-UNSPEC

Table 7.02 Obstetrics	
Code	Shortened Description
659.21	PYREXIA IN LABOR-DELIVER
659.23	PYREXIA IN LABOR-ANTEPAR
659.30	SEPTICEMIA IN LABOR-UNSP
659.31	SEPTICEM IN LABOR-DELIV
659.33	SEPTICEM IN LABOR-ANTEPA
659.40	GRAND MULTIPARITY-UNSPEC
659.41	GRAND MULTIPARITY-DELIV
659.43	GRAND MULTIPARITY-ANTEPA
659.50	ELDERLY PRIMIGRAVID-UNSP
659.51	ELDERLY PRIMIGRAVIDA-DEL
659.53	ELDER PRIMIGRAVID-ANTEPA
659.60	ELDERLY MULTIGRAVIDA-UNS
659.61	ELDERLY MULTIGRAVIDA-DEL
659.63	ELDERLY MULTIGRAVD-ANTEP
659.70	ABN FTL HRT RATE/RHY-UNS
659.71	ABN FTL HRT RATE/RHY-DEL
659.73	ABN FTL HRT RATE/RHY-ANT
659.80	COMPLIC LABOR NEC-UNSP
659.81	COMPLIC LABOR NEC-DELIV
659.83	COMPL LABOR NEC-ANTEPART
659.90	COMPLIC LABOR NOS-UNSPEC
659.91	COMPLIC LABOR NOS-DELIV
659.93	COMPL LABOR NOS-ANTEPART
660.00	OBSTRUCT/FET MALPOS-UNSPEC
660.01	OBSTRUC/FET MALPOS-DELIV
660.03	OBSTRUC/FET MALPOS-ANTEP
660.10	BONY PELV OBSTRUC-UNSPEC
660.11	BONY PELV OBSTRUCT-DELIV
660.13	BONY PELV OBSTRUC-ANTEPA
660.20	ABN PELV TISS OBSTR-UNSPEC
660.21	ABN PELV TIS OBSTR-DELIV
660.23	ABN PELV TIS OBSTR-ANTEP
660.30	PERSIST OCCIPTPOST-UNSPEC
660.31	PERSIST OCCIPTPOST-DELIV
660.33	PERSIST OCCIPTPOST-ANTEP
660.40	SHOULDER DYSTOCIA-UNSPEC
660.41	SHOULDER DYSTOCIA-DELIV
660.43	SHOULDER DYSTOCIA-ANTEPA
660.50	LOCKED TWINS-UNSPECIFIED
660.51	LOCKED TWINS-DELIVERED
660.53	LOCKED TWINS-ANTEPARTUM
660.60	FAIL TRIAL LAB NOS-UNSP
660.61	FAIL TRIAL LAB NOS-DELIV
660.63	FAIL TRIAL LAB NOS-ANTEP

Table 7.02 Obstetrics	
Code	Shortened Description
660.70	FAILED FORCEP NOS-UNSPEC
660.71	FAILED FORCEPS NOS-DELIV
660.73	FAIL FORCEPS NOS-ANTEPAR
660.80	OBSTRUC LABOR NEC-UNSPEC
660.81	OBSTRUCT LABOR NEC-DELIV
660.83	OBSTRUC LABOR NEC-ANTEPA
660.90	OBSTRUC LABOR NOS-UNSPEC
660.91	OBSTRUCT LABOR NOS-DELIV
660.93	OBSTRUC LABOR NOS-ANTEPA
661.00	PRIM UTERINE INERT-UNSP
661.01	PRIM UTERINE INERT-DELIV
661.03	PRIM UTER INERT-ANTEPART
661.10	SEC UTERINE INERT-UNSPEC
661.11	SEC UTERINE INERT-DELIV
661.13	SEC UTERINE INERT-ANTEPA
661.20	UTERINE INERTIA NEC-UNSP
661.21	UTERINE INERT NEC-DELIV
661.23	UTERINE INERT NEC-ANTEPA
661.30	PRECIPITATE LABOR-UNSPEC
661.31	PRECIPITATE LABOR-DELIV
661.33	PRECIPITATE LABOR-ANTEPA
661.40	UTER DYSTOCIA NOS-UNSPEC
661.41	UTER DYSTOCIA NOS-DELIV
661.43	UTER DYSTOCIA NOS-ANTEPA
661.90	ABNORMAL LABOR NOS-UNSP
661.91	ABNORMAL LABOR NOS-DELIV
661.93	ABNORM LABOR NOS-ANTEPAR
662.00	PROLONGED 1ST STAGE-UNSP
662.01	PROLONG 1ST STAGE-DELIV
662.03	PROLONG 1ST STAGE-ANTEPA
662.10	PROLONGED LABOR NOS-UNSP
662.11	PROLONG LABOR NOS-DELIV
662.13	PROLONG LABOR NOS-ANTEPA
662.20	PROLONGED 2ND STAGE-UNSP
662.21	PROLONG 2ND STAGE-DELIV
662.23	PROLONG 2ND STAGE-ANTEPA
662.30	DELAY DEL 2ND TWIN-UNSP
662.31	DELAY DEL 2ND TWIN-DELIV
662.33	DELAY DEL 2 TWIN-ANTEPAR
663.00	CORD PROLAPSE-UNSPEC
663.01	CORD PROLAPSE-DELIVERED
663.03	CORD PROLAPSE-ANTEPARTUM
663.10	CORD AROUND NECK-UNSP
663.11	CORD AROUND NECK-DELIVER

Table 7.02 Obstetrics	
Code	Shortened Description
663.13	CORD AROUND NECK-ANTEPAR
663.20	CORD COMPRESS NEC-UNSPEC
663.21	CORD COMPRESS NEC-DELIV
663.23	CORD COMPRES NEC-ANTEPAR
663.30	CORD ENTANGLE NEC-UNSPEC
663.31	CORD ENTANGLE NEC-DELIV
663.33	CORD ENTANGL NEC-ANTEPAR
663.40	SHORT CORD-UNSPECIFIED
663.41	SHORT CORD-DELIVERED
663.43	SHORT CORD-ANTEPARTUM
663.50	VASA PREVIA-UNSPECIFIED
663.51	VASA PREVIA-DELIVERED
663.53	VASA PREVIA-ANTEPARTUM
663.60	VASC LESION CORD-UNSPEC
663.61	VASC LESION CORD-DELIVER
663.63	VASC LESION CORD-ANTEPAR
663.80	CORD COMPLICAT NEC-UNSP
663.81	CORD COMPLICAT NEC-DELIV
663.83	CORD COMPL NEC-ANTEPART
663.90	CORD COMPLICAT NOS-UNSP
663.91	CORD COMPLICAT NOS-DELIV
663.93	CORD COMPL NOS-ANTEPART
664.00	DEL W 1 DEG LACERAT-UNSP
664.01	DEL W 1 DEG LACERAT-DEL
664.04	DEL W 1 DEG LAC-POSTPART
664.10	DEL W 2 DEG LACERAT-UNSP
664.11	DEL W 2 DEG LACERAT-DEL
664.14	DEL W 2 DEG LAC-POSTPART
664.20	DEL W 3 DEG LACERAT-UNSP
664.21	DEL W 3 DEG LACERAT-DEL
664.24	DEL W 3 DEG LAC-POSTPART
664.30	DEL W 4 DEG LACERAT-UNSP
664.31	DEL W 4 DEG LACERAT-DEL
664.34	DEL W 4 DEG LAC-POSTPART
664.40	OB PERINEAL LAC NOS-UNSP
664.41	OB PERINEAL LAC NOS-DEL
664.44	PERINEAL LAC NOS-POSTPAR
664.50	OB PERINEAL HEMATOM-UNSP
664.51	OB PERINEAL HEMATOMA-DEL
664.54	PERIN HEMATOMA-POSTPART
664.80	OB PERIN TRAUM NEC-UNSP
664.81	OB PERINEAL TRAU NEC-DEL
664.84	PERIN TRAUM NEC-POSTPART
664.90	OB PERIN TRAUM NOS-UNSP

Table 7.02 Obstetrics	
Code	Shortened Description
664.91	OB PERINEAL TRAU NOS-DEL
664.94	PERIN TRAUM NOS-POSTPART
665.00	PRELABOR RUPT UTER-UNSP
665.01	PRELABOR RUPT UTERUS-DEL
665.03	PRELAB RUPT UTER-ANTEPAR
665.10	RUPTURE UTERUS NOS-UNSP
665.11	RUPTURE UTERUS NOS-DELIV
665.20	INVERSION OF UTERUS-UNSP
665.22	INVERS UTERUS-DEL W P/P
665.24	INVERS UTERUS-POSTPART
665.30	LACERAT OF CERVIX-UNSPEC
665.31	LACERAT OF CERVIX-DELIV
665.34	LACER OF CERVIX-POSTPART
665.40	HIGH VAGINAL LACER-UNSP
665.41	HIGH VAGINAL LACER-DELIV
665.44	HIGH VAGINAL LAC-POSTPAR
665.50	OB INJ PELV ORG NEC-UNSP
665.51	OB INJ PELV ORG NEC-DEL
665.54	INJ PELV ORG NEC-POSTPAR
665.60	DAMAGE TO PELVIC JT-UNSP
665.61	DAMAGE TO PELVIC JT-DEL
665.64	DAMAGE PELVIC JT-POSTPAR
665.70	OB PELVIC HEMATOMA-UNSP
665.71	OB PELVIC HEMATOMA-DELIV
665.72	PELVIC HEMATOM-DEL W PP
665.74	PELVIC HEMATOMA-POSTPART
665.80	OB TRAUMA NEC-UNSPEC
665.81	OB TRAUMA NEC-DELIVERED
665.82	OB TRAUMA NEC-DEL W P/P
665.83	OB TRAUMA NEC-ANTEPARTUM
665.84	OB TRAUMA NEC-POSTPARTUM
665.90	OB TRAUMA NOS-UNSPEC
665.91	OB TRAUMA NOS-DELIVERED
665.92	OB TRAUMA NOS-DEL W P/P
665.93	OB TRAUMA NOS-ANTEPARTUM
665.94	OB TRAUMA NOS-POSTPARTUM
666.00	THIRD-STAGE HEM-UNSPEC
666.02	THRD-STAGE HEM-DEL W P/P
666.04	THIRD-STAGE HEM-POSTPART
666.10	POSTPARTUM HEM NEC-UNSP
666.12	POSTPA HEM NEC-DEL W P/P
666.14	POSTPART HEM NEC-POSTPAR
666.20	DELAY P/PART HEM-UNSPEC
666.22	DELAY P/P HEM-DEL W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
666.24	DELAY P/PART HEM-POSTPAR
666.30	POSTPART COAGUL DEF-UNSP
666.32	P/P COAG DEF-DEL W P/P
666.34	POSTPART COAG DEF-POSTPA
667.00	RETAIN PLACENTA NOS-UNSP
667.02	RETND PLAC NOS-DEL W P/P
667.04	RETAIN PLAC NOS-POSTPART
667.10	RETAIN PROD CONCEPT-UNSP
667.12	RET PROD CONC-DEL W P/P
667.14	RET PROD CONCEPT-POSTPAR
668.00	PULM COMPL IN DEL-UNSPEC
668.01	PULM COMPL IN DEL-DELIV
668.02	PULM COMPLIC-DEL W P/P
668.10	HEART COMPL IN DEL-UNSP
668.11	HEART COMPL IN DEL-DELIV
668.12	HEART COMPL-DEL W P/P
668.20	CNS COMPL LABOR/DEL-UNSP
668.21	CNS COMPL LAB/DEL-DELIV
668.22	CNS COMPLIC-DEL W P/P
668.80	ANESTH COMP DEL NEC-UNSP
668.81	ANESTH COMPL NEC-DELIVER
668.82	ANESTH COMPL NEC-DEL P/P
668.83	ANESTH COMPL ANTEPARTUM
668.84	ANESTH COMPL-POSTPARTUM
668.90	ANESTH COMP DEL NOS-UNSP
668.91	ANESTH COMPL NOS-DELIVER
668.92	ANESTH COMPL NOS-DEL P/P
668.93	ANESTH COMPL-ANTEPARTUM
668.94	ANESTH COMPL-POSTPARTUM
669.00	MATERNAL DISTRESS-UNSPEC
669.01	MATERNAL DISTRESS-DELIV
669.02	MATERN DISTRES-DEL W P/P
669.03	MATERN DISTRESS-ANTEPAR
669.04	MATERN DISTRESS-POSTPART
669.10	OBSTETRIC SHOCK-UNSPEC
669.11	OBSTETRIC SHOCK-DELIVER
669.12	OBSTET SHOCK-DELIV W P/P
669.20	MATERN HYPOTENS SYN-UNSP
669.21	MATERN HYPOTEN SYN-DELIV
669.22	MATERN HYPOTEN-DEL W P/P
669.23	MATERN HYPOTENS-ANTEPAR
669.24	MATERN HYPOTENS-POSTPART
669.30	AC KIDNEY FAIL W DEL-UNSP
669.32	AC KIDNEY FAIL-DEL W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
669.40	OTH OB SURG COMPL-UNSPEC
669.41	OTH OB COMPL-DELIVERED
669.42	OTH OB COMPL-DELIV W P/P
669.43	COMPLC OB SURG ANTEPRTM
669.44	OTH OB SURG COMPL-POSTPA
669.50	FORCEP DELIV NOS-UNSPEC
669.51	FORCEP DELIV NOS-DELIVER
669.60	BREECH EXTR NOS-UNSPEC
669.61	BREECH EXTR NOS-DELIVER
669.70	CESAREAN DELIV NOS-UNSP
669.71	CESAREAN DELIVERY NOS
669.80	COMPL LAB/DELIV NEC-UNSP
669.81	COMP LAB/DELIV NEC-DELIV
669.82	COMPL DEL NEC-DEL W P/P
669.83	COMPL DELIV NEC-ANTEPAR
669.84	COMPL DELIV NEC-POSTPART
669.90	COMPL LAB/DELIV NOS-UNSP
669.91	COMP LAB/DELIV NOS-DELIV
669.92	COMPL DEL NOS-DEL W P/P
669.93	COMPL DELIV NOS-ANTEPAR
669.94	COMPL DELIV NOS-POSTPART
670.00	MAJ PUERP INF NOS-UNSP
670.02	MAJ PUER INF NOS-DEL P/P
670.04	MAJOR PUERP INF NOS-P/P
671.00	VARIC VEIN LEG PREG-UNSP
671.01	VARICOSE VEIN LEG-DELIV
671.02	VARIC VEIN LEG-DEL W P/P
671.10	VARIC VULVA PREG-UNSPEC
671.11	VARICOSE VULVA-DELIVERED
671.12	VARICOSE VULVA-DEL W P/P
671.20	THROMBOPHLEB PREG-UNSPEC
671.21	THROMBOPHLEBITIS-DELIVER
671.22	THROMBOPHLEB-DELIV W P/P
671.80	VENOUS COMPL NEC-UNSPEC
671.81	VENOUS COMPL NEC-DELIVER
671.82	VEN COMP NEC-DELIV W P/P
672.00	PUERPERAL PYREXIA-UNSPEC
672.02	PUERP PYREXIA-DEL W P/P
673.00	OB AIR EMBOLISM-UNSPEC
673.01	OB AIR EMBOLISM-DELIVER
673.02	OB AIR EMBOL-DELIV W P/P
673.10	AMNIOTIC EMBOLISM-UNSPEC
673.11	AMNIOTIC EMBOLISM-DELIV
673.12	AMNIOT EMBOL-DELIV W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
673.30	OB PYEMIC EMBOL-UNSPEC
673.31	OB PYEMIC EMBOL-DELIVER
673.32	OB PYEM EMBOL-DEL W P/P
673.33	OB PYEMIC EMBOL-ANTEPART
673.34	OB PYEMIC EMBOL-POSTPART
673.80	PULMON EMBOL NEC-UNSP
673.81	PULMON EMBOL NEC-DELIVER
673.82	PULM EMBOL NEC-DEL W P/P
674.00	PUERP CEREBVASC DIS-UNSP
674.01	PUERP CEREBVAS DIS-DELIV
674.02	CEREBVAS DIS-DELIV W P/P
674.10	DISRUPT C-SECT WND-UNSP
674.12	DISRUPT C-SECT-DEL W P/P
674.20	DISRUPT PERINEUM-UNSPEC
674.22	DISRUPT PERIN-DEL W P/P
674.30	OB SURG COMPL NEC-UNSPEC
674.32	OB SURG COMPL-DEL W P/P
674.40	PLACENTAL POLYP-UNSPEC
674.42	PLACENT POLYP-DEL W P/P
674.50	PERIPART CARDIOMY-UNSPEC
674.51	PERIPARTUM CARDIOMY-DEL
674.52	PERIPART CARD DEL W P/P
674.80	PUERP COMPL NEC-UNSPEC
674.82	PUERP COMP NEC-DEL W P/P
674.90	PUERP COMPL NOS-UNSPEC
674.92	PUERP COMP NOS-DEL W P/P
675.00	INFECT NIPPLE PREG-UNSP
675.01	INFECT NIPPLE-DELIVERED
675.02	INFECT NIPPLE-DEL W P/P
675.10	BREAST ABSCESS PREG-UNSPEC
675.11	BREAST ABSCESS-DELIVERED
675.12	BREAST ABSCESS-DEL W P/P
675.20	MASTITIS IN PREG-UNSPEC
675.21	MASTITIS-DELIVERED
675.22	MASTITIS-DELIV W P/P
675.80	BREAST INF PREG NEC-UNSPEC
675.81	BREAST INFECT NEC-DELIV
675.82	BREAST INF NEC-DEL W P/P
675.90	BREAST INF PREG NOS-UNSP
675.91	BREAST INFECT NOS-DELIV
675.92	BREAST INF NOS-DEL W P/P
676.00	RETRACT NIPPLE PREG-UNSP
676.01	RETRACTED NIPPLE-DELIV
676.02	RETRACT NIPPLE-DEL W P/P

Table 7.02 Obstetrics	
Code	Shortened Description
676.03	RETRACT NIPPLE-ANTEPART
676.04	RETRACT NIPPLE-POSTPART
676.10	CRACKED NIPPLE PREG-UNSP
676.11	CRACKED NIPPLE-DELIV
676.12	CRACKED NIPPLE-DEL W P/P
676.13	CRACKED NIPPLE-ANTEPART
676.14	CRACKED NIPPLE-POSTPART
676.20	BREAST ENGORGE-UNSPEC
676.21	BREAST ENGORGE-DELIV
676.22	BREAST ENGORGE-DEL W P/P
676.23	BREAST ENGORGE-ANTEPART
676.24	BREAST ENGORGE-POSTPART
676.30	BREAST DIS PREG NEC-UNSP
676.31	BREAST DIS NEC-DELIV
676.32	BREAST DIS NEC-DEL W P/P
676.33	BREAST DIS NEC-ANTEPART
676.34	BREAST DIS NEC-POSTPART
676.40	LACTATION FAIL-UNSPEC
676.41	LACTATION FAIL-DELIVERED
676.42	LACTATION FAIL-DEL W P/P
676.43	LACTATION FAILURE-ANTEPART
676.44	LACTATION FAILURE-POSTPART
676.50	SUPPR LACTATION-UNSPEC
676.51	SUPPR LACTATION-DELIVER
676.52	SUPPR LACTAT-DEL W P/P
676.53	SUPPR LACTATION-ANTEPAR
676.54	SUPPR LACTATION-POSTPART
676.60	GALACTORRHEA PREG-UNSPEC
676.61	GALACTORRHEA-DELIVERED
676.62	GALACTORRHEA-DEL W P/P
676.63	GALACTORRHEA-ANTEPARTUM
676.64	GALACTORRHEA-POSTPARTUM
676.80	LACTATION DIS NEC-UNSPEC
676.81	LACTATION DIS NEC-DELIV
676.82	LACTAT DIS NEC-DEL W P/P
676.83	LACTAT DIS NEC-ANTEPART
676.84	LACTAT DIS NEC-POSTPART
676.90	LACTATION DIS NOS-UNSPEC
676.91	LACTATION DIS NOS-DELIV
676.92	LACTAT DIS NOS-DEL W P/P
676.93	LACTAT DIS NOS-ANTEPART
676.94	LACTAT DIS NOS-POSTPART
677	LATE EFFECT CMPLCATN PREG

Code	Shortened Description
415.11	IATROGEN PULM EMB/INFARC
415.19	PULM EMBOL/INFARCT NEC
451.11	FEMORAL VEIN PHLEBITIS
451.19	DEEP PHLEBITIS-LEG NEC
451.2	THROMBOPHLEBITIS LEG NOS
451.81	ILIAC THROMBOPHLEBITIS
451.9	THROMBOPHLEBITIS NOS
453.40	DVT/EMBLSM LOWER EXT NOS
453.41	DVT/EMB PROX LOWER EXT
453.87	AC EMBL THORAC VEIN NEC
453.89	AC EMBOLISM VEINS NEC
453.9	VENOUS THROMBOSIS NOS

Last Updated: Version 3.2

Code	Shortened Description
634.60	SPON ABORT W EMBOL-UNSPEC
634.61	SPON ABORT W EMBOL-INC
634.62	SPON ABORT W EMBOL-COMP
635.60	LEGAL ABORT W EMBOL-UNSPEC
635.61	LEGAL ABORT W EMBOL-INC
635.62	LEGAL ABORT W EMBOL-COMP
636.60	ILLEG AB W EMBOLISM-UNSPEC
636.61	ILLEG AB W EMBOLISM-INC
636.62	ILLEG AB W EMBOLISM-COMP
637.60	AB NOS W EMBOLISM-UNSP
637.61	AB NOS W EMBOLISM-INC
637.62	AB NOS W EMBOLISM-COMP
638.6	ATTEMP ABORT W EMBOLISM
639.6	POSTABORTION EMBOLISM
671.30	DEEP THROMB ANTEPAR-UNSPEC
671.31	DEEP THROM ANTEPAR-DELIV
671.33	DEEP VEIN THROMB-ANTEPAR
671.40	DEEP THROMB POSTPAR-UNSPEC
671.42	THROMB POSTPAR-DEL W P/P
671.44	DEEP VEIN THROMB-POSTPAR
671.50	THROMBOSIS NEC PREG-UNSPEC
671.51	THROMBOSIS NEC-DELIV
671.52	THROMB NEC-DELIV W P/P
671.53	THROMBOSIS NEC-ANTEPART
671.54	THROMBOSIS NEC-POSTPART

Table 7.04 Obstetrics – VTE	
Code	Shortened Description
671.90	VEN COMPL PREG NOS-UNSPEC
671.91	VENOUS COMPL NOS-DELIVER
671.92	VEN COMP NOS-DELIV W P/P
671.93	VENOUS COMPL NOS-ANTEPAR
671.94	VENOUS COMPL NOS-POSTPAR
673.20	OB PULM EMBOL NOS-UNSPEC
673.21	PULM EMBOL NOS-DELIV
673.22	PULM EMBOL NOS-DELIV W P/P
673.23	PULM EMBOL NOS-ANTEPART
673.24	PULM EMBOL NOS-POSTPART

Last Updated: Version 3.2

Table 8.1 Ischemic Stroke (STK)	
Code	Shortened Description
433.01	OCL BSLR ART W INFRCT
433.10	OCL CRTD ART WO INFRCT
433.11	OCL CRTD ART W INFRCT
433.21	OCL VRTB ART W INFRCT
433.31	OCL MLT BI ART W INFRCT
433.81	OCL SPCF ART W INFRCT
433.91	OCL ART NOS W INFRCT
434.00	CRBL THRMBS WO INFRCT
434.01	CRBL THRMBS W INFRCT
434.11	CRBL EMBLSM W INFRCT
434.91	CRBL ART OCL NOS W INFRC
436	CVA

Last Updated: Version 3.2

Table 8.2 Hemorrhagic Stroke (STK)	
Code	Shortened Description
430	SUBARACHNOID HEMORRHAGE
431	INTRACEREBRAL HEMORRHAGE

Last Updated: Version 3.2

Table 12.1 Diabetes	
Code	Shortened Description
250.00	DMII WO CMP NT ST UNCNTR
250.01	DMI WO CMP NT ST UNCNTRL
250.02	DMII WO CMP UNCNTRLD
250.03	DMI WO CMP UNCNTRLD
250.10	DMII KETO NT ST UNCNTRLD

Table 12.1 Diabetes	
Code	Shortened Description
250.11	DMI KETO NT ST UNCNTRLD
250.12	DMII KETOACD UNCONTROLD
250.13	DMI KETOACD UNCONTROLD
250.20	DMII HPRSM NT ST UNCNTRL
250.21	DMI HPRSM NT ST UNCNTRLD
250.22	DMII HPROSMLR UNCONTROLD
250.23	DMI HPROSMLR UNCONTROLD
250.30	DMII O CM NT ST UNCNTRLD
250.31	DMI O CM NT ST UNCNTRLD
250.32	DMII OTH COMA UNCONTROLD
250.33	DMI OTH COMA UNCONTROLD
250.40	DMII RENL NT ST UNCNTRLD
250.41	DMI RENL NT ST UNCNTRLD
250.42	DMII RENAL UNCNTRLD
250.43	DMI RENAL UNCNTRLD
250.50	DMII OPHTH NT ST UNCNTRL
250.51	DMI OPHTH NT ST UNCNTRLD
250.52	DMII OPHTH UNCNTRLD
250.53	DMI OPHTH UNCNTRLD
250.60	DMII NEURO NT ST UNCNTRL
250.61	DMI NEURO NT ST UNCNTRLD
250.62	DMII NEURO UNCNTRLD
250.63	DMI NEURO UNCNTRLD
250.70	DMII CIRC NT ST UNCNTRLD
250.71	DMI CIRC NT ST UNCNTRLD
250.72	DMII CIRC UNCNTRLD
250.73	DMI CIRC UNCNTRLD
250.80	DMII OTH NT ST UNCNTRLD
250.81	DMI OTH NT ST UNCNTRLD
250.82	DMII OTH UNCNTRLD
250.83	DMI OTH UNCNTRLD
250.90	DMII UNSPF NT ST UNCNTRL
250.91	DMI UNSPF NT ST UNCNTRLD
250.92	DMII UNSPF UNCNTRLD
250.93	DMI UNSPF UNCNTRLD
357.2	NEUROPATHY IN DIABETES
362.0	DIABETIC RETINOPATHY NOS
366.41	DIABETIC CATARACT
648.00	DIABETES IN PREG-UNSPEC
648.01	DIABETES-DELIVERED
648.02	DIABETES-DELIVERED W P/P
648.03	DIABETES-ANTEPARTUM
648.04	DIABETES-POSTPARTUM

Table 12.2 End Stage Renal Disease (ESRD)	
Code	Shortened Description
585.6	END STAGE RENAL DISEASE

Table 12.3 Pregnancy	
Code	Shortened Description
640.00	THREATENED ABORT-UNSPEC
640.03	THREATEN ABORT-ANTEPART
640.90	HEMORR EARLY PREG-UNSPEC
640.93	HEM EARLY PREG-ANTEPART
641.00	PLACENTA PREVIA-UNSPEC
641.03	PLACENTA PREVIA-ANTEPART
641.10	PLACENTA PREV HEM-UNSPEC
641.11	PLACENTA PREV HEM-DELIV
641.13	PLACEN PREV HEM-ANTEPART
641.20	PREM SEPAR PLACEN-UNSPEC
641.23	PREM SEPAR PLAC-ANTEPART
641.80	ANTEPART HEM NEC-UNSPEC
641.83	ANTEPART HEM NEC-ANTEPAR
641.90	ANTEPART HEM NOS-UNSPEC
641.93	ANTEPART HEM NOS-ANTEPAR
642.00	ESSEN HYPERTEN PREG-UNSP
642.03	ESSEN HYPERTEN-ANTEPART
642.10	RENAL HYPERTEN PREG-UNSP
642.20	OLD HYPERTEN PREG-UNSPEC
642.23	OLD HYPERTEN NEC-ANTEPAR
642.30	TRANS HYPERTEN PREG-UNSP
642.33	TRANS HYPERTEN-ANTEPART
642.40	MILD/NOS PREECLAMP-UNSP
642.43	MILD/NOS PREECLAMP-ANTEP
642.50	SEVERE PREECLAMP-UNSPEC
642.53	SEV PREECLAMP-ANTEPARTUM
642.60	ECLAMPSIA-UNSPECIFIED
642.63	ECLAMPSIA-ANTEPARTUM
642.70	TOX W OLD HYPERTEN-UNSP
642.73	TOX W OLD HYPER-ANTEPART
642.90	HYPERTEN PREG NOS-UNSPEC
642.93	HYPERTENS NOS-ANTEPARTUM
643.00	MILD HYPEREM GRAV-UNSPEC
643.03	MILD HYPEREMESIS-ANTEPAR
643.10	HYPEREM W METAB DIS-UNSP
643.13	HYPEREM W METAB-ANTEPART
643.20	LATE VOMIT OF PREG-UNSP

Table 12.3 Pregnancy	
Code	Shortened Description
643.23	LATE VOMIT PREG-ANTEPART
643.80	VOMIT COMPL PREG-UNSPEC
643.83	VOMIT COMPL PREG-ANTEPAR
643.90	VOMIT OF PREG NOS-UNSPEC
643.93	VOMIT OF PG NOS-ANTEPART
644.00	THREAT PREM LABOR-UNSPEC
644.03	THRT PREM LABOR-ANTEPART
644.10	THREAT LABOR NEC-UNSPEC
644.13	THREAT LABOR NEC-ANTEPAR
644.20	EARLY ONSET DELIV-UNSPEC
645.10	POST TERM PREG-UNSP
645.13	POST TERM PREG-ANTEPAR
645.20	PROLONGED PREG-UNSP
645.23	PROLONGED PREG-ANTEPAR
646.00	PAPYRACEOUS FETUS-UNSPEC
646.03	PAPYRACEOUS FET-ANTEPAR
646.10	EDEMA IN PREG-UNSPEC
646.13	EDEMA IN PREG-ANTEPARTUM
646.20	RENAL DIS PREG NOS-UNSP
646.23	RENAL DIS NOS-ANTEPARTUM
646.30	HABITUAL ABORTER-UNSPEC
646.33	HABITUAL ABORT-ANTEPART
646.40	NEURITIS OF PREG-UNSPEC
646.43	NEURITIS OF PREG-ANTEPAR
646.50	BACTERIURIA PREG-UNSPEC
646.53	ASY BACTERIURIA-ANTEPART
646.60	GU INFECT IN PREG-UNSPEC
646.63	GU INFECTION-ANTEPARTUM
646.70	LIVER DIS IN PREG-UNSPEC
646.73	LIVER DISORDER-ANTEPART
646.80	PREG COMPL NEC-UNSPEC
646.83	PREG COMPL NEC-ANTEPART
646.90	PREG COMPL NOS-UNSPEC
646.93	PREG COMPL NOS-ANTEPART
647.00	SYPHILIS IN PREG-UNSPEC
647.03	SYPHILIS-ANTEPARTUM
647.10	GONORRHEA IN PREG-UNSPEC
647.13	GONORRHEA-ANTEPARTUM
647.20	OTHER VD IN PREG-UNSPEC
647.23	OTHER VD-ANTEPARTUM
647.30	TB IN PREG-UNSPECIFIED
647.33	TUBERCULOSIS-ANTEPARTUM
647.40	MALARIA IN PREG-UNSPEC
647.43	MALARIA-ANTEPARTUM
647.50	RUBELLA IN PREG-UNSPEC

Table 12.3 Pregnancy	
Code	Shortened Description
647.53	RUBELLA-ANTEPARTUM
647.60	OTH VIRUS IN PREG-UNSPEC
647.63	OTH VIRAL DIS-ANTEPARTUM
647.80	INF DIS IN PREG NEC-UNSP
647.83	INFECT DIS NEC-ANTEPART
647.90	INFECT IN PREG NOS-UNSP
647.93	INFECT NOS-ANTEPARTUM
648.00	DIABETES IN PREG-UNSPEC
648.03	DIABETES-ANTEPARTUM
648.10	THYROID DYSFUN PREG-UNSP
648.13	THYROID DYSFUNC-ANTEPART
648.20	ANEMIA IN PREG-UNSPEC
648.23	ANEMIA-ANTEPARTUM
648.30	DRUG DEPEND PREG-UNSPEC
648.33	DRUG DEPENDENCE-ANTEPART
648.40	MENTAL DIS PREG-UNSPEC
648.43	MENTAL DISORDER-ANTEPART
648.50	CONGEN CV DIS PREG-UNSP
648.53	CONGEN CV DIS-ANTEPARTUM
648.60	CV DIS NEC PREG-UNSPEC
648.63	CV DIS NEC-ANTEPARTUM
648.70	BONE DISORD IN PREG-UNSP
648.73	BONE DISORDER-ANTEPARTUM
648.80	ABN GLUCOSE IN PREG-UNSP
648.83	ABN GLUCOSE-ANTEPARTUM
648.90	OTH CURR COND PREG-UNSP
648.93	OTH CURR COND-ANTEPARTUM
649.00	TOBACCO USE DISORD-UNSP
649.03	TOBACCO USE DIS-ANTEPART
649.10	OBESITY-UNSPECIFIED
649.13	OBESITY-ANTEPARTUM
649.20	BARIATRIC SURG STAT-UNSP
649.23	BARIATRC SURG STAT-ANTEP
649.30	COAGULATION DEF-UNSPEC
649.33	COAGULATION DEF-ANTEPART
649.40	EPILEPSY-UNSPECIFIED
649.43	EPILEPSY-ANTEPARTUM
649.50	SPOTTING-UNSPECIFIED
649.53	SPOTTING-ANTEPARTUM
649.60	UTERINE SIZE DESCRP-UNSP
649.63	UTERINE SIZE DES-ANTEPAR
651.00	TWIN PREGNANCY-UNSPEC
651.03	TWIN PREGNANCY-ANTEPART
651.10	TRIPLET PREGNANCY-UNSPEC
651.13	TRIPLET PREG-ANTEPARTUM

Table 12.3 Pregnancy

Code	Shortened Description
651.20	QUADRUPLET PREG-UNSPEC
651.23	QUADRUPLET PREG-ANTEPART
651.30	TWINS W FETAL LOSS-UNSP
651.33	TWINS W FETAL LOSS-ANTE
651.40	TRIPLETS W FET LOSS-UNSP
651.43	TRIPLETS W FET LOSS-ANTE
651.50	QUADS W FETAL LOSS-UNSP
651.53	QUADS W FETAL LOSS-ANTE
651.60	MULT GES W FET LOSS-UNSP
651.63	MULT GES W FET LOSS-ANTE
651.70	MUL GEST-FET REDUCT UNSP
651.73	MUL GEST-FET REDUCT ANTE
651.80	MULTI GESTAT NEC-UNSPEC
651.83	MULTI GEST NEC-ANTEPART
651.90	MULTI GESTAT NOS-UNSPEC
651.93	MULTI GEST NOS-ANTEPART
652.00	UNSTABLE LIE-UNSPECIFIED
652.03	UNSTABLE LIE-ANTEPARTUM
652.10	CEPHALIC VERS NOS-UNSPEC
652.13	CEPHAL VERS NOS-ANTEPART
652.20	BREECH PRESENTAT-UNSPEC
652.23	BREECH PRESENT-ANTEPART
652.30	TRANSV/OBLIQ LIE-UNSPEC
652.33	TRANSV/OBLIQ LIE-ANTEPAR
652.40	FACE/BROW PRESENT-UNSPEC
652.43	FACE/BROW PRES-ANTEPART
652.50	HIGH HEAD AT TERM-UNSPEC
652.53	HIGH HEAD TERM-ANTEPART
652.60	MULT GEST MALPRESEN-UNSP
652.63	MULT GES MALPRES-ANTEPAR
652.70	PROLAPSED ARM-UNSPEC
652.73	PROLAPSED ARM-ANTEPART
652.80	MALPOSITION NEC-UNSPEC
652.83	MALPOSITION NEC-ANTEPART
652.90	MALPOSITION NOS-UNSPEC
652.93	MALPOSITION NOS-ANTEPART
653.00	PELVIC DEFORM NOS-UNSPEC
653.03	PELV DEFORM NOS-ANTEPART
653.10	CONTRACT PELV NOS-UNSPEC
653.13	CONTRAC PELV NOS-ANTEPAR
653.20	INLET CONTRACTION-UNSPEC
653.23	INLET CONTRACT-ANTEPART
653.30	OUTLET CONTRACTION-UNSP
653.33	OUTLET CONTRACT-ANTEPART
653.40	FETOPELV DISPROP-UNSPEC

Table 12.3 Pregnancy	
Code	Shortened Description
653.43	FETOPEL DISPROP-ANTEPART
653.50	FETAL DISPROP NOS-UNSPEC
653.53	FETAL DISPRO NOS-ANTEPAR
653.60	HYDROCEPHAL FETUS-UNSPEC
653.63	HYDROCEPH FETUS-ANTEPART
653.70	OTH ABN FET DISPROP-UNSP
653.73	OTH ABN FET DISPRO-ANTEP
653.80	DISPROPORTION NEC-UNSPEC
653.83	DISPROPOR NEC-ANTEPARTUM
653.90	DISPROPORTION NOS-UNSPEC
653.93	DISPROPOR NOS-ANTEPARTUM
654.00	CONG ABN UTER PREG-UNSP
654.03	CONGEN ABN UTER-ANTEPART
654.10	UTER TUMOR IN PREG-UNSP
654.13	UTERINE TUMOR-ANTEPARTUM
654.20	PREV C-DELIVERY UNSPEC
654.23	PREV C-DELIVERY-ANTEPART
654.30	RETROVERT UTERUS-UNSPEC
654.33	RETROVERT UTER-ANTEPART
654.40	ABN GRAV UTERUS NEC-UNSP
654.43	ABN UTERUS NEC-ANTEPART
654.50	CERV INCOMPET PREG-UNSP
654.53	CERV INCOMPET-ANTEPARTUM
654.60	ABN CERVIX NEC PREG-UNSP
654.63	ABN CERVIX NEC-ANTEPART
654.70	ABN VAGINA IN PREG-UNSP
654.73	ABNORM VAGINA-ANTEPARTUM
654.80	ABN VULVA IN PREG-UNSPEC
654.83	ABNORMAL VULVA-ANTEPART
654.90	ABN PEL NEC IN PREG-UNSP
654.93	ABN PELV ORG NEC-ANTEPAR
655.00	FETAL CNS MALFORM-UNSPEC
655.03	FETAL CNS MALFOR-ANTEPAR
655.10	FETAL CHROMOS ABN-UNSPEC
655.13	FET CHROMO ABN-ANTEPART
655.20	FAMIL HEREDIT DIS-UNSPEC
655.23	FAMIL HERED DIS-ANTEPART
655.30	FET DAMG D/T VIRUS-UNSP
655.33	FET DAMG D/T VIRUS-ANTEP
655.40	FET DAMG D/T DIS-UNSPEC
655.43	FET DAMG D/T DIS-ANTEPAR
655.50	FETAL DAMG D/T DRUG-UNSP
655.53	FET DAMG D/T DRUG-ANTEPA
655.60	RADIAT FETAL DAMAG-UNSP
655.63	RADIAT FET DAMAG-ANTEPAR

Table 12.3 Pregnancy	
Code	Shortened Description
655.70	DECREASE FETL MOVMT UNSP
655.73	DEC FETAL MOVMT ANTEPART
655.80	FETAL ABNORM NEC-UNSPEC
655.83	FETAL ABNORM NEC-ANTEPAR
655.90	FETAL ABNORM NOS-UNSPEC
655.93	FETAL ABNORM NOS-ANTEPAR
656.00	FETAL-MATERNAL HEM-UNSP
656.03	FETAL-MATERN HEM-ANTEPAR
656.10	RH ISOIMMUNIZATION-UNSP
656.13	RH ISOIMMUNIZAT-ANTEPART
656.20	ABO ISOIMMUNIZATION-UNSP
656.23	ABO ISOIMMUNIZAT-ANTEPAR
656.30	FETAL DISTRESS-UNSPEC
656.33	FETAL DISTRESS-ANTEPART
656.40	INTRAUTERINE DEATH-UNSP
656.43	INTRAUTER DEATH-ANTEPART
656.50	POOR FETAL GROWTH-UNSPEC
656.53	POOR FETAL GRTH-ANTEPART
656.60	EXCESS FETAL GRTH-UNSPEC
656.63	EXCESS FET GRTH-ANTEPART
656.70	OTH PLACENT COND-UNSPEC
656.73	OTH PLACENT COND-ANTEPAR
656.80	FET/PLAC PROB NEC-UNSPEC
656.83	FET/PLAC PROB NEC-ANTEPA
656.90	FET/PLAC PROB NOS-UNSPEC
656.93	FET/PLAC PROB NOS-ANTEPA
657.0	POLYHYDRAMNIOS-UNSPEC
657.3	POLYHYDRAMNIOS-ANTEPART
658.00	OLIGOHYDRAMNIOS-UNSPEC
658.03	OLIGOHYDRAMNIOS-ANTEPAR
658.10	PREM RUPT MEMBRAN-UNSPEC
658.13	PREM RUPT MEMB-ANTEPART
658.20	PROLONG RUPT MEMB-UNSPEC
658.23	PROLONG RUP MEMB-ANTEPAR
658.30	ARTIFIC RUPT MEMBR-UNSP
658.33	ARTIF RUPT MEMB-ANTEPART
658.40	AMNIOTIC INFECTION-UNSP
658.43	AMNIOTIC INFECT-ANTEPART
658.80	AMNIOTIC PROB NEC-UNSPEC
658.83	AMNION PROB NEC-ANTEPART
658.90	AMNIOTIC PROB NOS-UNSPEC
658.93	AMNION PROB NOS-ANTEPART
659.00	FAIL MECHAN INDUCT-UNSP
659.03	FAIL MECH INDUCT-ANTEPAR
659.10	FAIL INDUCTION NOS-UNSP

Table 12.3 Pregnancy	
Code	Shortened Description
659.13	FAIL INDUCT NOS-ANTEPART
659.20	PYREXIA IN LABOR-UNSPEC
659.23	PYREXIA IN LABOR-ANTEPAR
659.30	SEPTICEMIA IN LABOR-UNSP
659.33	SEPTICEM IN LABOR-ANTEPA
659.40	GRAND MULTIPARITY-UNSPEC
659.43	GRAND MULTIPARITY-ANTEPA
659.50	ELDERLY PRIMIGRAVID-UNSP
659.53	ELDER PRIMIGRAVID-ANTEPA
659.60	ELDERLY MULTIGRAVIDA-UNS
659.63	ELDERLY MULTIGRAVD-ANTEP
659.70	ABN FTL HRT RATE/RHY-UNS
659.73	ABN FTL HRT RATE/RHY-ANT
659.80	COMPLIC LABOR NEC-UNSP
659.83	COMPL LABOR NEC-ANTEPART
659.90	COMPLIC LABOR NOS-UNSP
659.93	COMPL LABOR NOS-ANTEPART
660.00	OBSTRUCT/FET MALPOS-UNSP
660.03	OBSTRUC/FET MALPOS-ANTEP
660.10	BONY PELV OBSTRUC-UNSPEC
660.13	BONY PELV OBSTRUC-ANTEPA
660.20	ABN PELV TISS OBSTR-UNSP
660.23	ABN PELV TIS OBSTR-ANTEP
660.30	PERSIST OCCIPITPOST-UNSP
660.33	PERSIST OCCIPTPOST-ANTEP
660.40	SHOULDER DYSTOCIA-UNSPEC
660.43	SHOULDER DYSTOCIA-ANTEPA
660.50	LOCKED TWINS-UNSPECIFIED
660.53	LOCKED TWINS-ANTEPARTUM
660.60	FAIL TRIAL LAB NOS-UNSP
660.63	FAIL TRIAL LAB NOS-ANTEP
660.70	FAILE6D FORCEP NOS-UNSPEC
660.73	FAIL FORCEPS NOS-ANTEPAR
660.80	OBSTRUC LABOR NEC-UNSPEC
660.83	OBSTRUC LABOR NEC-ANTEPA
660.90	OBSTRUC LABOR NOS-UNSPEC
660.93	OBSTRUC LABOR NOS-ANTEPA
661.00	PRIM UTERINE INERT-UNSP
661.03	PRIM UTER INERT-ANTEPART
661.10	SEC UTERINE INERT-UNSPEC
661.13	SEC UTERINE INERT-ANTEPA
661.20	UTERINE INERTIA NEC-UNSP
661.23	UTERINE INERT NEC-ANTEPA
661.30	PRECIPITATE LABOR-UNSPEC
661.33	PRECIPITATE LABOR-ANTEPA

Table 12.3 Pregnancy	
Code	Shortened Description
661.40	UTER DYSTOCIA NOS-UNSPEC
661.43	UTER DYSTOCIA NOS-ANTEPA
661.90	ABNORMAL LABOR NOS-UNSP
661.93	ABNORM LABOR NOS-ANTEPAR
662.00	PROLONGED 1ST STAGE-UNSP
662.03	PROLONG 1ST STAGE-ANTEPA
662.10	PROLONGED LABOR NOS-UNSP
662.13	PROLONG LABOR NOS-ANTEPA
662.20	PROLONGED 2ND STAGE-UNSP
662.23	PROLONG 2ND STAGE-ANTEPA
662.30	DELAY DEL 2ND TWIN-UNSP
662.33	DELAY DEL 2 TWIN-ANTEPAR
663.00	CORD PROLAPSE-UNSPEC
663.03	CORD PROLAPSE-ANTEPARTUM
663.10	CORD COMPRESS NEC-UNSPEC
663.13	CORD COMPRES NEC-ANTEPAR
663.20	CORD AROUND NECK-UNSPEC
663.23	CORD AROUND NECK-ANTEPAR
663.30	CORD ENTANGLE NEC-UNSPEC
663.33	CORD ENTANGL NEC-ANTEPAR
663.40	SHORT CORD-UNSPECIFIED
663.43	SHORT CORD-ANTEPARTUM
663.50	VASA PREVIA-UNSPECIFIED
663.53	VASA PREVIA-ANTEPARTUM
663.60	VASC LESION CORD-UNSPEC
663.63	VASC LESION CORD-ANTEPAR
663.80	CORD COMPLICAT NEC-UNSP
663.83	CORD COMPL NEC-ANTEPART
663.90	CORD COMPLICAT NOS-UNSP
663.93	CORD COMPL NOS-ANTEPART
664.00	DEL W 1 DEG LACERAT-UNSP
664.10	DEL W 2 DEG LACERAT-UNSP
664.20	DEL W 3 DEG LACERAT-UNSP
664.30	DEL W 4 DEG LACERAT-UNSP
664.40	OB PERINEAL LAC NOS-UNSP
664.50	OB PERINEAL HEMATOM-UNSP
664.60	ANAL SPHINCTER TEAR NOS
664.80	OB PERIN TRAUM NEC-UNSP
664.90	OB PERIN TRAUM NOS-UNSP
665.00	PRELABOR RUPT UTER-UNSP
665.03	PRELAB RUPT UTER-ANTEPAR
665.10	RUPTURE UTERUS NOS-UNSP
665.20	INVERSION OF UTERUS-UNSP
665.30	LACERAT OF CERVIX-UNSPEC
665.40	HIGH VAGINAL LACER-UNSP

Table 12.3 Pregnancy	
Code	Shortened Description
665.50	OB INJ PELV ORG NEC-UNSP
665.60	DAMAGE TO PELVIC JT-UNSP
665.70	OB PELVIC HEMATOMA-UNSP
665.80	OB TRAUMA NEC-UNSPEC
665.83	OB TRAUMA NEC-ANTEPARTUM
665.90	OB TRAUMA NOS-UNSPEC
665.93	OB TRAUMA NOS-ANTEPARTUM
666.00	THIRD-STAGE HEM-UNSPEC
668.00	PULM COMPL IN DEL-UNSP
668.03	PULM COMPLICAT-ANTEPART
668.10	HEART COMPL IN DEL-UNSP
668.13	HEART COMPLIC-ANTEPART
668.20	CNS COMPL LABOR/DEL-UNSP
668.23	CNS COMPL IN DEL-ANTEPAR
668.80	ANESTH COMP DEL NEC-UNSP
668.83	ANESTH COMPL ANTEPARTUM
668.90	ANESTH COMP DEL NOS-UNSP
668.93	ANESTH COMPL-ANTEPARTUM
669.00	MATERNAL DISTRESS-UNSPEC
669.03	MATERN DISTRESS-ANTEPAR
669.10	OBSTETRIC SHOCK-UNSPEC
669.13	OBSTETRIC SHOCK-ANTEPAR
669.20	MATERN HYPOTENS SYN-UNSP
669.23	MATERN HYPOTENS-ANTEPAR
669.30	AC REN FAIL W DELIV-UNSP
671.00	VARIC VEIN LEG PREG-UNSP
671.03	VARIC VEIN LEG-ANTEPART
671.10	VARIC VULVA PREG-UNSPEC
671.13	VARICOSE VULVA-ANTEPART
671.20	THROMBOPHLEB PREG-UNSPEC
671.23	THROMBOPHLEBIT-ANTEPART
671.30	DEEP THROMB ANTEPAR-UNSP
671.33	DEEP VEIN THROMB-ANTEPAR
671.40	DEEP THROMB POSTPAR-UNSP
671.50	THROMBOSIS NEC PREG-UNSP
671.53	THROMBOSIS NEC-ANTEPART
671.80	VEN COMPL PREG NEC-UNSP
671.83	VENOUS COMPL NEC-ANTEPAR
671.90	VEN COMPL PREG NOS-UNSP
671.93	VENOUS COMPL NOS-ANTEPAR
673.10	AMNIOTIC EMBOLISM-UNSPEC
673.13	AMNIOTIC EMBOL-ANTEPART
673.23	PULM EMBOL NOS-ANTEPART
673.30	OB PYEMIC EMBOL-UNSPEC
673.33	OB PYEMIC EMBOL-ANTEPART

Table 12.3 Pregnancy	
Code	Shortened Description
673.80	OB PULMON EMBOL NEC-UNSP
673.83	PULMON EMBOL NEC-ANTEPAR
674.03	CEREBROVASC DIS-ANTEPART
674.40	PLACENTAL POLYP-UNSPEC
674.50	PERIPART CARDIOMY-UNSPEC
674.53	PERIPARTUM CARD-ANTEPART
674.80	PUERP COMPL NEC-UNSPEC
674.90	PUERP COMPL NOS-UNSPEC
675.00	INFECT NIPPLE PREG-UNSP
675.03	INFECT NIPPLE-ANTEPARTUM
675.10	BREAST ABSCESS PREG-UNSP
675.13	BREAST ABSCESS-ANTEPART
675.20	MASTITIS IN PREG-UNSPEC
675.23	MASTITIS-ANTEPARTUM
675.80	BREAST INF PREG NEC-UNSP
675.83	BREAST INF NEC-ANTEPART
675.90	BREAST INF PREG NOS-UNSP
675.93	BREAST INF NOS-ANTEPART
676.00	RETRACT NIPPLE PREG-UNSP
676.03	RETRACT NIPPLE-ANTEPART
676.10	CRACKED NIPPLE PREG-UNSP
676.13	CRACKED NIPPLE-ANTEPART
676.20	BREAST ENGORGE-UNSPEC
676.23	BREAST ENGORGE-ANTEPART
676.30	BREAST DIS PREG NEC-UNSP
676.33	BREAST DIS NEC-ANTEPART
676.40	LACTATION FAIL-UNSPEC
676.43	LACTATION FAIL-ANTEPART
676.50	SUPPR LACTATION-UNSPEC
676.53	SUPPR LACTATION-ANTEPAR
676.60	GALACTORRHEA PREG-UNSPEC
676.63	GALACTORRHEA-ANTEPARTUM
676.80	LACTATION DIS NEC-UNSPEC
676.83	LACTAT DIS NEC-ANTEPART
676.90	LACTATION DIS NOS-UNSPEC
676.93	LACTAT DIS NOS-ANTEPART
677	LATE EFFCT CMPLCATN PREG
V22.0	SUPERVIS NORMAL 1ST PREG
V22.1	SUPERVIS OTH NORMAL PREG
V22.2	PREG STATE, INCIDENTAL
V23.0	PREG W HX OF INFERTILITY
V23.1	PREG W HX-TROPHOBLAS DIS
V23.2	PREG W HX OF ABORTION
V23.3	GRAND MULTIPARITY
V23.41	PREG W HX PRE-TERM LABOR

Table 12.3 Pregnancy	
Code	Shortened Description
V23.49	PREG W POOR OBS HX NEC
V23.5	PREG W POOR REPRODUCT HX
V23.7	INSUFFICNT PRENATAL CARE
V23.81	SUPRV ELDERLY PRIMIGRAV
V23.82	SUPRV ELDERLY MULTIGRAV
V23.83	SUPRV YOUNG PRIMIGRAVIDA
V23.84	SUPRV YOUNG MULTIGRAVIDA
V23.89	SUPRV HIGH-RISK PREG NEC
V23.9	SUPRV HIGH-RISK PREG NOS

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Table 12.4 Asthma	
Code	Shortened Description
493.00	EXTRINSIC ASTHMA NOS
493.01	EXT ASTHMA W STATUS ASTH
493.02	EXT ASTHMA W(ACUTE) EXAC
493.10	INTRINSIC ASTHMA NOS
493.11	INT ASTHMA W STATUS ASTH
493.12	INT ASTHMA W (AC) EXAC
493.20	CHRONIC OBST ASTHMA NOS
493.21	CH OB ASTHMA W STAT ASTH
493.22	CH OBST ASTH W (AC) EXAC
493.81	EXERCSE IND BRONCHOSPASM
493.82	COUGH VARIANT ASTHMA
493.90	ASTHMA NOS
493.91	ASTHMA W STATUS ASTHMAT
493.92	ASTHMA NOS W (AC) EXAC

Last Updated: Version 3.2

Table 12.5 Chronic Obstructive Pulmonary Disease (COPD)	
Code	Shortened Description
491.0	SIMPLE CHR BRONCHITIS
491.1	MUCOPURUL CHR BRONCHITIS
491.20	OBST CHR BRONC W/O EXAC
491.21	OBS CHR BRONC W(AC) EXAC
491.22	OBS CHR BRONC W AC BRONC
491.8	CHRONIC BRONCHITIS NEC
491.9	CHRONIC BRONCHITIS NOS
492.0	EMPHYSEMATOUS BLEB
492.8	EMPHYSEMA NEC
496	CHR AIRWAY OBSTRUCT NEC

Table 12.6 Nephrotic Syndrome	
Code	Shortened Description
581.0	NEPHROTIC SYN, PROLIFER
581.1	EPIMEMBRANOUS NEPHRITIS
581.2	MEMBRANOPROLIF NEPHROSIS
581.3	MINIMAL CHANGE NEPHROSIS
581.81	NEPHROTIC SYN IN OTH DIS
581.89	NEPHROTIC SYNDROME NEC
581.9	NEPHROTIC SYNDROME NOS

Last Updated: Version 3.2

Table 12.7 Asplenia	
Code	Shortened Description
282.6	SICKLE CELL DISEASE NOS
746.87	MALPOSITION OF HEART
759.0	ANOMALIES OF SPLEEN

Last Updated: Version 3.2

Table 12.8 Human Immunodeficiency Virus (HIV)	
Code	Shortened Description
042	HUMAN IMMUNO VIRUS DIS
079.53	HIV-2 INFECTION OTH DIS
V08	ASYMP HIV INFECTN STATUS

Last Update: Version 3.2

Table 12.9 Influenza	
Code	Shortened Description
99.52	INFLUENZA VACCINATION

NATIONAL QUALITY FORUM

Measure Evaluation 4.1 December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the [evaluation criteria](#) are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all **yellow highlighted** areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all **pink** highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met

C = Completely (unquestionably demonstrated to meet the criterion)

P = Partially (demonstrated to partially meet the criterion)

M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)

N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)

NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) NQF Review #: 1479	NQF Project: Surgery Endorsement Maintenance 2010
MEASURE DESCRIPTIVE INFORMATION	
De.1 Measure Title: Patient(s) 18 years of age and older on lipid-lowering medication at admission or within seven days of discharge of an isolated CABG procedure.	
De.2 Brief description of measure: Patient(s) 18 years of age and older hospitalized for an isolated CABG procedure taking a lipid-lowering medication at admission or within seven days of discharge.	
1.1-2 Type of Measure: Process	
De.3 If included in a composite or paired with another measure, please identify composite or paired measure	
De.4 National Priority Partners Priority Area: Population health	
De.5 IOM Quality Domain: Effectiveness	
De.6 Consumer Care Need: Staying healthy	

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. <i>Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.</i> A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)? Yes A.2 Indicate if Proprietary Measure (as defined in measure steward agreement): Proprietary measure A.3 Measure Steward Agreement: Agreement will be signed and submitted prior to or at the time of measure submission A.4 Measure Steward Agreement attached:	A Y <input type="checkbox"/> N <input type="checkbox"/>
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and	B

update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	Y <input type="checkbox"/> N <input type="checkbox"/>
C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ► Purpose: Public reporting, Internal quality improvement Accountability, Payment incentive	C Y <input type="checkbox"/> N <input type="checkbox"/>
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1 Testing: Yes, fully developed and tested D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures? Yes	D Y <input type="checkbox"/> N <input type="checkbox"/>
(for NQF staff use) Have all conditions for consideration been met? Staff Notes to Steward (if submission returned):	Met Y <input type="checkbox"/> N <input type="checkbox"/>
Staff Notes to Reviewers (issues or questions regarding any criteria):	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria) 1a. High Impact	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, Leading cause of morbidity/mortality, Patient/societal consequences of poor quality 1a.2 1a.3 Summary of Evidence of High Impact: Coronary artery bypass graft (CABG) surgery is one of the most common operations performed in the world and accounts for more resources spent in cardiovascular medicine than any other single procedure (1). The mortality benefit of CABG is most evident the first decade after surgery. It then drops off significantly due to progression of underlying atherosclerotic disease (2). Therefore, management of the atherosclerotic process is an essential as part of post-bypass care. Clinical trials have demonstrated that statin therapy, sometimes combined with other lipid-lowering medications, is beneficial in almost all patients with coronary heart disease, including those who have undergone CABG (1,3-4). For example, the Post Coronary Artery Bypass Graft trial, which compared aggressive to moderate lipid-lowering therapy, demonstrated a 30 percent reduction in revascularization procedures and a 24 percent reduction in the composite end point of cardiovascular death, myocardial infarction, stroke, CABG, or angioplasty after a follow-up period of 7.5 years (3). 1a.4 Citations for Evidence of High Impact: 1.ACC/AHA 2004 guideline update for coronary artery bypass graft surgery: a report of the American College of Cardiology/American Heart Association Task Force on	1a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>

<p>Practice Guidelines (Committee to Update the 1999 Guidelines for Coronary Artery Bypass Graft Surgery). Circulation 2004;110(14):e340-437.</p> <p>2. Peduzzi P, Kamina A, Detre K, for the VA Coronary Artery Bypass Surgery Cooperative Group. Twenty-two-year follow-up in the VA Cooperative Study of Coronary Artery Bypass Surgery for Stable Angina. Am J Cardiol 1998;81(12):1393-9.</p> <p>3. The Post Coronary Artery Bypass Graft Trial Investigators. The effect of aggressive lowering of low-density lipoprotein cholesterol levels and low-dose anticoagulation on obstructive changes in saphenous-vein coronary-artery bypass grafts. N Engl J Med 1997;336:153-62.</p> <p>4. MRC/BHF Heart Protection Study of cholesterol lowering with simvastatin in 20,536 high-risk individuals: a randomised placebo-controlled trial. Lancet 2002;360(9326):7-22.</p>	
<p>1b. Opportunity for Improvement</p> <p>1b.1 Benefits (improvements in quality) envisioned by use of this measure: This measure identifies patients 18 years of age and older with an isolated CABG procedure who had a lipid-lowering medication prescription dispensed while hospitalized, within 7 days of the CABG hospitalization discharge, or had an active lipid-lowering medication prescription at the time of the CABG hospitalization. The goal of this measure is to improve long-term CABG surgery outcomes by identifying patients who may be candidates for lipid-lowering medications and improve overall compliance to this recommended aspect of care. Lipid-lowering treatment has been demonstrated to improve long-term outcomes after CABG surgery, including a reduction in revascularization procedures and other cardiovascular events.</p> <p>1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers: Using a geographically diverse 15 million member benchmark database (this database represents predominately a commercial population less than 65 year of age) the compliance rate, as defined in this measure, was 32.8 percent. This indicates an opportunity for care improvement.</p> <p>1b.3 Citations for data on performance gap: Ingenix EBM Connect benchmark results, October 2010</p> <p>1b.4 Summary of Data on disparities by population group: none</p> <p>1b.5 Citations for data on Disparities: none</p>	<p>1b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>1c. Outcome or Evidence to Support Measure Focus</p> <p>1c.1 Relationship to Outcomes (For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population): This measure identifies patients who have not received a lipid-lowering medication after CABG surgery. Although this is a process measure, lipid-lowering treatment after CABG surgery has been associated with improved long-term outcomes. In this population, long-term cardiovascular morbidity and mortality is often due to ongoing progression of atherosclerotic disease. Management of underlying atherosclerosis has been associated with a reduction in revascularization procedures and other cardiovascular events (e.g., death, myocardial infarction, stroke).</p> <p>This measure will identify surgeons or surgical centers with low compliance to lipid-lowering medication treatment. Improved compliance to this recommended aspect of care can lead to quality improvement initiatives that improve patient outcomes and reduce overall costs.</p> <p>1c.2-3. Type of Evidence: Evidence-based guideline, Randomized controlled trial, Other CMS PQRI</p> <p>1c.4 Summary of Evidence (as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome): In the Post Coronary Artery Bypass Graft trial, 1351 patients with serum LDL-cholesterol concentrations between 130 and 175 mg/dL were randomly assigned to receive either aggressive therapy with lovastatin and, if needed, cholestyramine, with a goal LDL-cholesterol of less than 100 mg/dL or moderate therapy,</p>	<p>1c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

which resulted in LDL-cholesterol concentrations of approximately 134 mg/dL. Aggressive therapy versus moderate therapy was associated with a delay in the progression of graft disease at follow up angiography. In addition, a 30 percent reduction in revascularization procedures and a 24 percent reduction in the composite end point of cardiovascular death, myocardial infarction, stroke, CABG, or angioplasty was seen at 7.5 years post-bypass (1).

The Cholesterol-Lowering Atherosclerosis Study (CLAS) was a randomized, placebo-controlled, angiographic trial that combined colestipol hydrochloride and niacin therapy versus placebo in 162 nonsmoking men aged 40 to 59 years with previous CABG surgery (2). After two years of treatment, a significant reduction in atherosclerosis was noted in the drug-treated group. In addition, worsening of overall coronary status was significantly less in drug-treated subjects than placebo-treated subjects ($P < .001$).

Based on this evidence and other clinical trials, the ACC/AHA 2004 CABG surgery guidelines (3) recommend that all patients undergoing CABG surgery receive statin therapy unless otherwise contraindicated (Class I, Level of Evidence: A). The more recent 2010 CMS PQRI measure that addresses this same issue recommends "anti-lipid treatment at discharge" for patients 18 years and older undergoing isolated CABG surgery (4).

1c.5 Rating of strength/quality of evidence (also provide narrative description of the rating and by whom):

Class I, Level of Evidence: A (ACC/AHA 2004 CABG surgery guidelines)

1c.6 Method for rating evidence: The ACC/AHA guideline recommendation format for classifying indications and summarizing both the evidence and expert opinions is as follows:

Classification of Recommendations

Class I: Conditions for which there is evidence for and/or general agreement that the procedure or treatment is useful and effective.

Class II: Conditions for which there is conflicting evidence and/or divergence of opinion about the usefulness/efficacy of a procedure or treatment.

Class IIa: The weight of evidence or opinion is in favor of the procedure or treatment.

Class IIb: Usefulness/efficacy is less well established by evidence or opinion.

Class III: Conditions for which there is evidence and/or general agreement that the procedure or treatment is not useful/effective and in some cases may be harmful.

Level of Evidence

Level of Evidence A: Data derived from multiple randomized clinical trials or meta-analyses.

Level of Evidence B: Data derived from a single randomized trial, or nonrandomized studies.

Level of Evidence C: Only consensus opinion of experts, case studies, or standard-of-care.

1c.7 Summary of Controversy/Contradictory Evidence: There is no significant controversy regarding this recommendation.

1c.8 Citations for Evidence (other than guidelines): 1. The Post Coronary Artery Bypass Graft Trial Investigators. The effect of aggressive lowering of low-density lipoprotein cholesterol levels and low-dose anticoagulation on obstructive changes in saphenous-vein coronary-artery bypass grafts. *N Engl J Med* 1997;336:153-62.

2. Blankenhorn DH, Nessim SA, Johnson RL, Sanmarco ME, et al. *JAMA* 1987;257:3233-3240.

4. CMS. 2010 Physician Quality Reporting Initiative Measure Specifications Manual for Claims and Registry. Measure 171: Coronary Artery Bypass Graft (CABG): Lipid Management and Counseling.

1c.9 Quote the Specific guideline recommendation (including guideline number and/or page number):

Section 4.2.2 (page e381):

Class I

All patients undergoing CABG should receive statin therapy unless otherwise contraindicated. (Level of Evidence: A)

1c.10 Clinical Practice Guideline Citation: 3. ACC/AHA 2004 guideline update for coronary artery bypass graft surgery: a report of the American College of Cardiology/American Heart Association Task Force on

<p>Practice Guidelines (Committee to Update the 1999 Guidelines for Coronary Artery Bypass Graft Surgery). <i>Circulation</i> 2004;110(14):e340-437.</p> <p>1c.11 National Guideline Clearinghouse or other URL: http://circ.ahajournals.org/</p> <p>1c.12 Rating of strength of recommendation (also provide narrative description of the rating and by whom): Class I, Level of Evidence: A (ACC/AHA 2004 CABG surgery guidelines)</p> <p>1c.13 Method for rating strength of recommendation (If different from USPSTF system, also describe rating and how it relates to USPSTF): The ACC/AHA guideline recommendation format for classifying indications and summarizing both the evidence and expert opinions is as follows:</p> <p>Classification of Recommendations Class I: Conditions for which there is evidence for and/or general agreement that the procedure or treatment is useful and effective. Class II: Conditions for which there is conflicting evidence and/or divergence of opinion about the usefulness/efficacy of a procedure or treatment. Class IIa: The weight of evidence or opinion is in favor of the procedure or treatment. Class IIb: Usefulness/efficacy is less well established by evidence or opinion. Class III: Conditions for which there is evidence and/or general agreement that the procedure or treatment is not useful/effective and in some cases may be harmful.</p> <p>Level of Evidence Level of Evidence A: Data derived from multiple randomized clinical trials or meta-analyses. Level of Evidence B: Data derived from a single randomized trial, or nonrandomized studies. Level of Evidence C: Only consensus opinion of experts, case studies, or standard-of-care.</p> <p>This strength of recommendation would be consistent with the following USPSTF classifications: Level of Certainty Regarding Net Benefit: High Grade: A</p> <p>1c.14 Rationale for using this guideline over others: ACC/AHA is an internationally recognized organization that, with the assistance of cardiovascular experts, has developed this comprehensive guideline for the management of patients undergoing CABG surgery.</p>	
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Importance to Measure and Report</i>?</p>	<p>1</p>
<p>Steering Committee: Was the threshold criterion, <i>Importance to Measure and Report</i>, met? Rationale:</p>	<p>1 Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p style="text-align: center;">2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES</p>	
<p>Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)</p>	<p>Eval Rating</p>
<p style="text-align: center;">2a. MEASURE SPECIFICATIONS</p>	
<p>S.1 Do you have a web page where current detailed measure specifications can be obtained? S.2 If yes, provide web page URL:</p> <p>2a. Precisely Specified</p>	
<p>2a.1 Numerator Statement (Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome): Patient(s) who are taking a lipid-lowering medication at CABG admission date or within seven days of discharge.</p>	<p>2a- specs C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

2a.2 Numerator Time Window (*The time period in which cases are eligible for inclusion in the numerator*):
 90 days prior to the CABG admission date through 7 days after hospital discharge

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*):

The patient must fulfill at least one of the following three criteria:

1. The patient filled a prescription for a Lipid-lowering medication (AMA-defined, RX0220, see attachment at the end of this application) during the following time period: CABG admission date through seven days after the hospital discharge
2. The patient filled a prescription for a Lipid-lowering medication (AMA-defined, RX0220, see attached) during the 90 days prior to the CABG admission date, with the days supplied greater than or equal to the number of days between the fill date on the prescription and the CABG admission date.
3. The patient had a claim with a procedure code for Anti-lipid treatment at discharge (CMS-defined, PR0379) during the following time period: CABG admission date through seven days after the hospital discharge

Cd	Set Code	Set Description	Proc Cd	Categ	Proc Cd	Description
	PR0379	Antilipid treatmnt at dischg	G8585	HCPCS		Antilipid treatment at discharge

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured*):

People hospitalized for an isolated CABG procedure

2a.5 Target population gender: Female, Male

2a.6 Target population age range: 18 years of age or older on the report start date

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator*):

CABG events are identified 12 months prior to the report period end date through 7 days prior to the report period end date

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions*):

The following criteria must be met for the patient to be included in the measure denominator:

1. The patient must have a CABG event defined as follows:

Note: Build multiple events initiated by a CABG procedure during the study window if denominator requirements are met for all events.

During the following time period: 12 months prior to the report period end date through 7 days prior to the report period end date, begin multiple episodes for inpatient encounters based on the inpatient encounter discharge date (Category of Care = Facility Event - Confinement/Admission) where the confinement includes a claim with a procedure code for Coronary Artery Bypass Graft (code set PR0224). Define an event as the time period from admission to seven days after discharge.

2. Patient must have been continuously enrolled in Medical benefits throughout the event with no breaks in enrollment.

Cd	Set Code	Set Description	Prc Cd	Categ	Proc Code	Description
	PR0224	Coronary artery bypass graft	33510	CPT	CABG, vein only; single coronary venous graft	
	PR0224	Coronary artery bypass graft	33511	CPT	CABG, vein only; 2 coronary venous grafts	
	PR0224	Coronary artery bypass graft	33512	CPT	CABG, vein only; 3 coronary venous grafts	
	PR0224	Coronary artery bypass graft	33513	CPT	CABG, vein only; 4 coronary venous grafts	
	PR0224	Coronary artery bypass graft	33514	CPT	CABG, vein only; 5 coronary venous grafts	
	PR0224	Coronary artery bypass graft	33516	CPT	CABG, vein only; 6 or more	

<p>coronary venous grafts</p> <p>PR0224 Coronary artery bypass graft 33517 CPT CABG using ven& art graft(s); single vein graft</p> <p>PR0224 Coronary artery bypass graft 33518 CPT CABG using ven& art graft(s); 2 venous grafts</p> <p>PR0224 Coronary artery bypass graft 33519 CPT CABG using ven& art graft(s); 3 venous grafts</p> <p>PR0224 Coronary artery bypass graft 33521 CPT CABG using ven& art graft(s); 4 venous grafts</p> <p>PR0224 Coronary artery bypass graft 33522 CPT CABG using ven& art graft(s); 5 venous grafts</p> <p>PR0224 Coronary artery bypass graft 33523 CPT CABG using ven& art graft(s); 6 or more venous grafts</p> <p>PR0224 Coronary artery bypass graft 33533 CPT CABG, using arterial graft(s); single arterial graft</p> <p>PR0224 Coronary artery bypass graft 33534 CPT CABG, using arterial graft(s); 2 coronary arterial grafts</p> <p>PR0224 Coronary artery bypass graft 33535 CPT CABG, using arterial graft(s); 3 coronary arterial grafts</p> <p>PR0224 Coronary artery bypass graft 33536 CPT CABG, using arterial graft(s); 4 or more arterial grafts</p>

2a.9 Denominator Exclusions (Brief text description of exclusions from the target population):

1. Exclude patients who were readmitted to an acute or non-acute care facility for any diagnosis within seven days after discharge
2. Exclude the event if the patient died during the admission
3. Exclude the event if the patient did not have pharmacy benefits throughout the CABG event.
4. Exclude the event if the patient had a contraindication for anti-lipid therapy.

2a.10 Denominator Exclusion Details (All information required to collect exclusions to the denominator, including all codes, logic, and definitions):

1. Exclude patients if, during the seven days after hospital discharge, there was a claim for a Facility Event - Confinement/Admission.
Note: Transfer to another acute care facility is considered a readmission and will be excluded.
2. Exclude the event if the patient died during the admission, as evidenced by the discharge status for the admission was Patient Status Indicator equal to 20 (Expired)
3. Exclude patients who did not have continuous enrollment in pharmacy benefits throughout the event (CABG admission date through 7 days after discharge). NOTE: this exclusion should be applied AFTER the patient has been evaluated for the numerator.
4. Exclude the patient if the patient had a claim with a procedure code for Anti-lipid treatment contraindicated/not indicated (CMS-defined, code set PR0380). NOTE: this exclusion should be applied AFTER the patient has been evaluated for the numerator.

Cd Set Code Set Description	Proc Cd Categ Proc Cd Description
PR0380 Antilp trtmnt contraind/not ind	G8586 HCPCS Antilipid treatment contraindicated/not indicated

2a.11 Stratification Details/Variables (All information required to stratify the measure including the stratification variables, all codes, logic, and definitions):
None

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method):

<p>2a.15-17 Detailed risk model available Web page URL or attachment:</p>	
<p>2a.18-19 Type of Score: Rate/proportion 2a.20 Interpretation of Score: Better quality = Higher score 2a.21 Calculation Algorithm (<i>Describe the calculation of the measure as a flowchart or series of steps</i>): 1. Exclude members who meet denominator exclusion criteria 2. Assign a YES or NO result to remaining members based on numerator response 3. Rate = YES/[YES+NO]</p>	
<p>2a.22 Describe the method for discriminating performance (<i>e.g., significance testing</i>): Nearly 900 patients met the denominator from a geographically diverse 15 million member benchmark database. About 600 patients did not meet numerator compliance, indicating a significant population with deviation from recommended care. The subsequent compliance rate was 32.8 percent.</p>	
<p>2a.23 Sampling (Survey) Methodology <i>If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):</i> A 15 million patient population sample was chosen to analyze the potential gap in care. The sample was derived from more than 60 million patients based on criteria including national geographic representation, commercial health coverage and patient age less than 65.</p>	
<p>2a.24 Data Source (<i>Check the source(s) for which the measure is specified and tested</i>) Electronic administrative data/claims, Pharmacy data</p>	
<p>2a.25 Data source/data collection instrument (<i>Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.</i>): Our data source is a proprietary Ingenix provider database that includes more than 60 million patients, over multiple years. It includes data from multiple payors. This measure specifically uses the following data from this database: member demographics, ICD-9 codes, revenue codes, CPT codes, place of service, and pharmacy claims.</p>	
<p>2a.26-28 Data source/data collection instrument reference web page URL or attachment:</p>	
<p>2a.29-31 Data dictionary/code table web page URL or attachment: Attachment Input Guide_NQF.doc</p>	
<p>2a.32-35 Level of Measurement/Analysis (<i>Check the level(s) for which the measure is specified and tested</i>) Clinicians: Individual, Clinicians: Group, Facility/Agency, Health Plan, Integrated delivery system, Multi-site/corporate chain, Population: states, Population: counties or cities, Program: Disease management, Program: QIO, Can be measured at all levels</p>	
<p>2a.36-37 Care Settings (<i>Check the setting(s) for which the measure is specified and tested</i>) Hospital, Ambulatory Care: Clinic, Ambulatory Care: Emergency Dept, Nursing home (NH) /Skilled Nursing Facility (SNF), Ambulatory Care: Hospital Outpatient, Rehabilitation Facility</p>	
<p>2a.38-41 Clinical Services (<i>Healthcare services being measured, check all that apply</i>) Clinicians: PA/NP/Advanced Practice Nurse, Clinicians: Physicians (MD/DO)</p>	
TESTING/ANALYSIS	
<p>2b. Reliability testing</p> <p>2b.1 Data/sample (<i>description of data/sample and size</i>): Our data sample included a geographically diverse 15 million member benchmark database. The database represents predominately a commercial population less than 65 year of age. This benchmark database contained service dates 1/1/2007 through 12/31/2009.</p> <p>2b.2 Analytic Method (<i>type of reliability & rationale, method for testing</i>): Quality assurance of each measure is accomplished through the testing using multiple methods. Types of testing, data samples and volume vary to ensure the integrity of the measure. Rigorous development, analysis and testing processes are deployed for creating measure specifications. Software testing ensures the software is working as designed. Reliability and validity testing of measures is based on differing data</p>	<p>2b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

samples and volume of members. National benchmarks are created on a large volume set of data representing members throughout the United States. All quality checks for all measure results must have consistent results and meet expected outcomes based on industry knowledge and experience.

Customer Acceptance Testing (CAT) is another important quality process. CAT ensures that the clinical measures are functioning as intended and that they generate accurate results for typical billing patterns. Using actual claims data a team of business analysts, nurses, and health services researchers conducts a detailed analysis of the output. For each clinical condition in the product (e.g., Diabetes Mellitus, Coronary Artery Disease, etc.) there is a set of CAT data with up to 4000 members who satisfy the condition confirmation criteria. This data is extracted from a large (50+ million member) multi-payer benchmark database and contains inpatient, outpatient, pharmacy, and laboratory data. The testing team analyzes claims from individual members and compares the creation of denominators (target population), numerators, and exclusions from this manual review process to output results from the quality measure.

Regression testing is the part of CAT that verifies the reliability of the product across software releases. For a new release the testing team confirms that every unchanged measure produces the same results as in previous releases, accounting for systematic changes to the software (e.g., code updates, logic changes, etc). Regression testing is conducted at multiple points throughout the software development cycle.

2b.3 Testing Results (*reliability statistics, assessment of adequacy in the context of norms for the test conducted*):

Within our data sample, 882 members met the denominator definition for this measure during the measurement year. Of these members, 289 received a lipid-lowering medication . The overall compliance rate for this measure was 32.8 percent.

2c. Validity testing

2c.1 Data/sample (*description of data/sample and size*): Our data sample included a geographically diverse 15 million member benchmark database. The database represents predominately a commercial population less than 65 year of age. This benchmark database contained service dates 1/1/2007 through 12/31/2009.

2c.2 Analytic Method (*type of validity & rationale, method for testing*):

Face Validity Testing (FVT) is the final testing step in the software release cycle. One million members are randomly selected from the large multi-payer benchmark database and their claims data is processed through the software. A systematic, comprehensive review is used to evaluate these FVT results.

1. The Medical Director reviews the results to verify that:
 - a. Prevalence rates for a condition are comparable to nationally published rates;
 - b. Compliance rates for a measure are comparable to the rates reported in the published literature or by other national sources. If no comparable sources are available, the rates are judged based on what is clinically reasonable.
2. All results are reviewed for face validity by members of our external physician clinical consultant panel.

2c.3 Testing Results (*statistical results, assessment of adequacy in the context of norms for the test conducted*):

No statistical tests are used to interpret our test results.

2c
 C
 P
 M
 N

2d. Exclusions Justified

2d.1 Summary of Evidence supporting exclusion(s):

Patients are excluded from this measure if they died during the CABG hospitalization. This is consistent with the CMS PQRI logic (1). In addition, patient are excluded from the denominator if they were readmitted within 7 days of hospital discharge. This recommendation was based on consensus expert opinion from our external consultant panel since readmission within 7 days would overlap with the numerator intervention time period. Finally, patients are excluded if they have a contraindication for lipid-lowering medication treatment (1,2).

2d.2 Citations for Evidence:

1. CMS. 2010 Physician Quality Reporting Initiative Measure Specifications Manual for Claims and Registry. Measure 171: Coronary Artery Bypass Graft (CABG): Lipid Management and Counseling.

2d
 C
 P
 M
 N
 NA

<p>2. ACC/AHA 2004 guideline update for coronary artery bypass graft surgery: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Update the 1999 Guidelines for Coronary Artery Bypass Graft Surgery). <i>Circulation</i> 2004;110(14):e340-437.</p> <p>2d.3 Data/sample (<i>description of data/sample and size</i>): Our data sample included a geographically diverse 15 million member benchmark database. The database represents predominately a commercial population less than 65 year of age. This benchmark database contained service dates 1/1/2007 through 12/31/2009.</p> <p>2d.4 Analytic Method (<i>type analysis & rationale</i>): Impact of measure exclusions is included in our FVT testing process and review of benchmark results. A systematic, comprehensive review is used to evaluate these results. 1. The Medical Director reviews the results to verify that: a. Exclusion rates for a condition and measure are comparable to nationally published rates; b. Exclusion rates for a measure are comparable to the rates reported in the published literature or by other national sources. If no comparable sources are available, the rates are judged based on what is clinically reasonable. 2. All results are reviewed for face validity by members of our external physician clinical consultant panel.</p> <p>2d.5 Testing Results (<i>e.g., frequency, variability, sensitivity analyses</i>): Within our data sample, 882 members met the denominator definition for this measure during the measurement year. Of these members, 289 received a lipid-lowering medication. The overall compliance rate for this measure was 32.8 percent. Approximately 6 percent of members were excluded from the denominator based on criteria summarized in 2d.1.</p>	
<p>2e. Risk Adjustment for Outcomes/ Resource Use Measures</p> <p>2e.1 Data/sample (<i>description of data/sample and size</i>): No risk adjustment was applied to this measure.</p> <p>2e.2 Analytic Method (<i>type of risk adjustment, analysis, & rationale</i>):</p> <p>2e.3 Testing Results (<i>risk model performance metrics</i>):</p> <p>2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:</p>	<p>2e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2f. Identification of Meaningful Differences in Performance</p> <p>2f.1 Data/sample from Testing or Current Use (<i>description of data/sample and size</i>): Our data sample included a geographically diverse 15 million member benchmark database. The database represents predominately a commercial population less than 65 year of age. This benchmark database contained service dates 1/1/2007 through 12/31/2009.</p> <p>2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance (<i>type of analysis & rationale</i>): The identification of meaningful differences in performance is included in our FVT testing process and review of benchmark results. A systematic, comprehensive review is used to evaluate these results. 1. The Medical Director reviews the results to verify that: a. Compliance rates are comparable to nationally published rates; b. Compliance rates are similar to rates reported in the published literature or by other national sources. If no comparable sources are available, the rates are judged based on what is clinically reasonable. c. Compliance rates, based on literature support, indicate a gap in care and opportunity for care improvement. 2. All results are reviewed for face validity by members of our external physician clinical consultant panel.</p> <p>No statistical tests are used to identify meaningful differences in performance.</p> <p>2f.3 Provide Measure Scores from Testing or Current Use (<i>description of scores, e.g., distribution by</i></p>	<p>2f C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance): Within our benchmark data sample, 882 members met the denominator definition for this measure during the measurement year. Of these members, 289 received a lipid-lowering medication. The overall compliance rate for this measure was 32.8 percent.</p>	
<p>2g. Comparability of Multiple Data Sources/Methods</p> <p>2g.1 Data/sample (description of data/sample and size): Our testing process does not compare multiple data sources.</p> <p>2g.2 Analytic Method (type of analysis & rationale):</p> <p>2g.3 Testing Results (e.g., correlation statistics, comparison of rankings):</p>	<p>2g C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>2h. Disparities in Care</p> <p>2h.1 If measure is stratified, provide stratified results (scores by stratified categories/cohorts): Measure is not stratified.</p> <p>2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans: Does not apply</p>	<p>2h C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Scientific Acceptability of Measure Properties?</p>	<p>2</p>
<p>Steering Committee: Overall, to what extent was the criterion, Scientific Acceptability of Measure Properties, met? Rationale:</p>	<p>2 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>3. USABILITY</p>	
<p>Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>3a. Meaningful, Understandable, and Useful Information</p> <p>3a.1 Current Use: In use</p> <p>3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large) (If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years): Health plans, physicians (individuals and groups), care management, and other vendors/customers are using this on a national level. Customers are able to select their measures depending on their business needs. As such, we do not know which specific measures are used by our customers or are use in public reporting initiatives. Our plan over the next three years is to identify at least two large customers who are using this measure as part of public reporting initiative so that we can provide this requested information in the future.</p> <p>3a.3 If used in other programs/initiatives (If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years): Health plans, physicians (individuals and groups), care management, and other vendors/customers use many of our measures on a national level for quality improvement, disease management, and physician sharing programs. Customers are able to select their measures depending on their business needs. As such, we do not know which specific measures are used by our customers.</p>	<p>3a C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

<p>Our plan over the next three years is to identify at least two large customers who are using this measure as part of a QI or other program initiative so that we can provide this requested information in the future.</p> <p>Testing of Interpretability (Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement)</p> <p>3a.4 Data/sample (description of data/sample and size): Results are summarized and reported by users/customers depending on their business need - we do not have access to this information. Because of use by multiple users/customers, there is no single data sample, methodology, or public reporting format.</p> <p>3a.5 Methods (e.g., focus group, survey, QI project):</p> <p>3a.6 Results (qualitative and/or quantitative results and conclusions):</p>	
<p>3b/3c. Relation to other NQF-endorsed measures</p> <p>3b.1 NQF # and Title of similar or related measures: NQF #118: Anti-Lipid Treatment Discharge</p>	
<p>(for NQF staff use) Notes on similar/related <u>endorsed</u> or submitted measures:</p>	
<p>3b. Harmonization If this measure is related to measure(s) already <u>endorsed by NQF</u> (e.g., same topic, but different target population/setting/data source <u>or</u> different topic but same target population):</p> <p>3b.2 Are the measure specifications harmonized? If not, why? Measure specifications are harmonized with respect to denominator definition and criteria.</p>	<p>3b</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p>3c. Distinctive or Additive Value</p> <p>3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures: Measure 118, which is currently part of the CMS PQRI program (CMS PQRI measure 171), allows use of G codes only to identify numerator compliance. Also, measure 118 is available for registry reporting only. Our Ingenix measure uses pharmacy claims, in addition to the CMS PQRI G codes, to identify numerator compliance. This use of claims data significantly increases the usability of this measure. It increases the ability to identify gaps in care, support quality improvement programs, and measure provider performance. Finally, our measure is not dependent on voluntary participation in the registry program.</p> <p>5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality: Measure 118, which is currently part of the CMS PQRI program (CMS PQRI measure 171), allows use of G codes only to identify numerator compliance. Also, measure 118 is available for registry reporting only. Our Ingenix measure uses pharmacy claims, in addition to the CMS PQRI G codes, to identify numerator compliance. This use of claims data significantly increases the usability of this measure. It increases the ability to identify gaps in care, support quality improvement programs, and measure provider performance. Our measure is not dependent on voluntary participation in the registry program.</p>	<p>3c</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Usability?</p>	<p>3</p>
<p>Steering Committee: Overall, to what extent was the criterion, Usability, met? Rationale:</p>	<p>3</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
4. FEASIBILITY	
<p>Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (<u>evaluation criteria</u>)</p>	<p><u>Eval</u> <u>Rating</u></p>
<p>4a. Data Generated as a Byproduct of Care Processes</p>	<p>4a</p>

<p>4a.1-2 How are the data elements that are needed to compute measure scores generated? Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)</p>	<p>C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4b. Electronic Sources</p> <p>4b.1 Are all the data elements available electronically? <i>(elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims)</i> Yes</p> <p>4b.2 If not, specify the near-term path to achieve electronic capture by most providers.</p>	<p>4b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4c. Exclusions</p> <p>4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications? No</p> <p>4c.2 If yes, provide justification.</p>	<p>4c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p>4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences</p> <p>4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results. none anticipated</p>	<p>4d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>4e. Data Collection Strategy/Implementation</p> <p>4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues: We have not needed to modify this measure based on test results or use of this measure. Members are excluded from this measure if they do not have pharmacy benefits. This eliminates errors due to pharmacy data incompleteness.</p> <p>4e.2 Costs to implement the measure <i>(costs of data collection, fees associated with proprietary measures)</i>: We do not have access to this information. This would vary based on the customer/vendor, patient population, and programs/interventions associated with measure use</p> <p>4e.3 Evidence for costs: not available</p> <p>4e.4 Business case documentation: not available</p>	<p>4e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Feasibility?</p>	<p>4</p>
<p>Steering Committee: Overall, to what extent was the criterion, Feasibility, met? Rationale:</p>	<p>4 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>RECOMMENDATION</p>	
<p>(for NQF staff use) Check if measure is untested and only eligible for time-limited endorsement.</p>	<p>Time-limited <input type="checkbox"/></p>

Steering Committee: Do you recommend for endorsement? Comments:	Y <input type="checkbox"/> N <input type="checkbox"/> A <input type="checkbox"/>
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CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner) Co.1 Organization Ingenix, 12125 Technology Drive, Eden Prairie, Minnesota, 55344
Co.2 Point of Contact Kay, Schwebke, Medical Director, kay.schwebke@ingenix.com, 952-833-7154-
Measure Developer If different from Measure Steward Co.3 Organization Ingenix, 12125 Technology Drive, Eden Prairie, Minnesota, 55344
Co.4 Point of Contact Kay, Schwebke, Medical Director, kay.schwebke@ingenix.com, 952-833-7154-
Co.5 Submitter If different from Measure Steward POC Kay, Schwebke, Medical Director, kay.schwebke@ingenix.com, 952-833-7154-, Ingenix
Co.6 Additional organizations that sponsored/participated in measure development

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development. Our external consultant panel participates in the original literature search process, measure development, code set review, testing review, and maintenance processes. Panel members include the following: NAME & Title Employer/Position Alexander, Beth Pharm D, BCPS Assistant Professor, Augsburg College Ayenew, Woubeshet, MD Hennepin Faculty Associates; Hennepin County Medical Center Becker, Keith, MD Fairview Medical Center Betcher, Susan, MD Allina Medical Clinic Bruer, Paul, MD Comprehensive Ophthalmology, LLC Capecchi, Joseph, MD Allina Medical Clinic Giesler, Janell, MD Allina Medical Clinic Grabowski, Carol, MD Allina Medical Clinic Hansen, Calvin, MD Iowa Health Physicians Hargrove, Jody, MD Arthritis and Rheumatology Consultants Hermann, Richard, MD Tufts - New England Medical Center Jemming, Brian, Pharm D CentraCare Health System Kohen, Jeffrey, MD Veterans Affairs Medical Center McCarthy, Teresa, MD University of Minnesota, Department of Family Medicine & Community Health McEvoy, Charlene, MD, MPH HealthPartners & HealthPartners Research Foundation; Assistant Professor of Medicine, University of Minnesota McGee, Deanna, Pharm D, BCPS Retail Pharmacy Ogle, Kathleen, MD Hennepin Faculty Associates; Hennepin County Medical Center: Assistant Professor of Medicine, University of Minnesota Medical School Peter, Kathleen, MD Park Nicollet Medical Center Pieper-Bigelow, Christina, MD Allina Medical Clinic Redmon, Bruce, MD University of Minnesota Physicians Scharpf, Steven, MD Mountain Valleys Health Centers
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<p>Ad.2 If adapted, provide name of original measure: Ad.3-5 If adapted, provide original specifications URL or attachment</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance Ad.6 Year the measure was first released: 2006 Ad.7 Month and Year of most recent revision: 11, 2009 Ad.8 What is your frequency for review/update of this measure? every three years at minimum Ad.9 When is the next scheduled review/update for this measure? 11, 2012</p>
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<p>Ad.11 -13 Additional Information web page URL or attachment: Attachment Lipid-lowering therapy RX code set.xls</p>
<p>Date of Submission (MM/DD/YY): 10/13/2010</p>

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	49483001310	niacin 125 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	49483001401	niacin 250 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	49483001410	niacin 250 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	49483001501	niacin 400 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	49483001510	niacin 400 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	49483001801	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	49884075401	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	49884075410	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	49884075501	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	49884075510	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	49884075601	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	49884075610	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	49884079165	cholestyramine 4 gm/9 gm oral powder	Questran	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	49884079166	cholestyramine 4 gm/9 gm oral powder	Questran	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	50752031080	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		1/1/2003
RX0220	CAD	2	NDC	Rx	51079078719	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	51079078720	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	51079097420	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		

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RX0220	CAD	2	NDC	Rx	51079097520	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	51079097620	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	OTC	52297052278	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		6/21/2002
RX0220	CAD	2	NDC	Rx	52544045405	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	52544045460	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	52555011101	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		12/31/2000
RX0220	CAD	2	NDC	Rx	52555063405	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		12/31/2000
RX0220	CAD	2	NDC	Rx	52555063460	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		12/31/2000
RX0220	CAD	2	NDC	OTC	52604157501	niacin 400 mg oral capsule, extended release	Nico-400	miscellaneous antihyperlipidemic agents	N		1/1/2002
RX0220	CAD	2	NDC	OTC	52604554501	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2001
RX0220	CAD	2	NDC	OTC	52735007601	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	53191006001	niacin 50 mg oral tablet	B-3-50	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	53191013001	niacin 500 mg oral tablet	B3-500-Gr	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	54429314801	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		1/1/2000
RX0220	CAD	2	NDC	Rx	54569061300	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569061301	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569061302	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569061303	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	54569061304	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569130502	cholestyramine 4 gm/9 gm oral powder	Questran	bile acid sequestrants	N		
RX0220	CAD	2	NDC	OTC	54569225901	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	54569325600	lovastatin 40 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569325601	lovastatin 40 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569342400	cholestyramine 4 gm/5 gm oral powder	Questran Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	54569369500	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	54569369501	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	54569382100	fluvastatin 20 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569382101	fluvastatin 20 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569384000	pravastatin 10 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569418000	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569418001	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569434600	pravastatin 10 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569434601	pravastatin 10 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569440300	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569440400	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569446600	atorvastatin 10 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569446601	atorvastatin 10 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569446700	atorvastatin 20 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569461000	pravastatin 40 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	54569476100	fluvastatin 40 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	OTC	54569478400	niacin 750 mg oral tablet, extended release	Niaspan ER	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	54569483200	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	54569801100	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54569801600	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	54569851100	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	54569851101	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	54569859800	pravastatin 10 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	OTC	54629005101	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	OTC	54629007101	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	OTC	54629071201	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	OTC	54629071303	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	Rx	54868068601	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868068602	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868068603	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868068604	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868108700	lovastatin 40 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868108701	lovastatin 40 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868141800	gemfibrozil 600 mg oral tablet	Lopid	fibric acid derivatives	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	54868141801	gemfibrozil 600 mg oral tablet	Lopid	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	54868196800	lovastatin 10 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868228800	pravastatin 20 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868263901	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868310400	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868327000	pravastatin 40 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868327001	pravastatin 40 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868332900	fluvastatin 20 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868393400	atorvastatin 10 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868394600	atorvastatin 20 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868415700	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868418100	simvastatin 80 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	54868422900	atorvastatin 40 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	55175504606	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	55289010430	pravastatin 10 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	55289040030	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	55289047630	fluvastatin 40 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	55289054830	lovastatin 40 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	55289074060	fluvastatin 20 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	55953009635	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	55953009665	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	55953011135	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		5/31/2003
RX0220	CAD	2	NDC	Rx	55953011156	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		8/31/2003
RX0220	CAD	2	NDC	Rx	57480080901	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		7/31/2002
RX0220	CAD	2	NDC	Rx	57480080906	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		12/31/2000
RX0220	CAD	2	NDC	Rx	57844032201	fenofibrate 67 mg oral capsule	Lofibra	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	57844032301	fenofibrate 134 mg oral capsule	Lofibra	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	57844032401	fenofibrate 200 mg oral capsule	Lofibra	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	57866654002	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	57866654004	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	57866798201	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	57866798301	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	57866798601	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	57866861501	atorvastatin 10 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016036400	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016036430	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016036460	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016036490	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016036500	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016036530	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016036560	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016036590	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	58016038500	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016038530	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016038560	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016038590	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016042500	pravastatin 20 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016042530	pravastatin 20 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016042560	pravastatin 20 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016042590	pravastatin 20 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	58016054000	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	58016054060	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	58016906601	cholestyramine 4 gm/9 gm oral powder	Questran	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	58016911101	cholestyramine 4 gm/5 gm oral powder	Questran Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	58016996701	cholestyramine 4 gm/5 gm oral powder	Questran Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	59591001768	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	59772558501	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	59772558502	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	59772558901	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	59772558902	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	59930163801	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		12/19/2003
RX0220	CAD	2	NDC	Rx	59930163802	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		12/19/2003
RX0220	CAD	2	NDC	Rx	60505003404	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	60505003408	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	60598000101	niacin 500 mg oral tablet, extended release	Niaspan ER	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	60598000201	niacin 750 mg oral tablet, extended release	Niaspan ER	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	60598000301	niacin 1000 mg oral tablet, extended release	Niaspan ER	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	60598000421	niacin oral tablet, extended release	Niaspan ER Starter Pack	miscellaneous antihyperlipidemic agents	N		2/4/2000
RX0220	CAD	2	NDC	Rx	60598000690	lovastatin-niacin 20 mg-500 mg oral tablet	Advicor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	60598000790	lovastatin-niacin 20 mg-750 mg oral tablet	Advicor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	60598000890	lovastatin-niacin 20 mg-1000 mg oral tablet	Advicor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	OTC	60814056701	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	60814056801	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	61392011630	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	61392011631	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	61392011632	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	61392011639	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	61392011645	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	61392011651	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	61392011654	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	61392011660	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	61392011690	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	61392011691	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	62022077030	lovastatin 20 mg oral tablet, extended release	Altacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	62022078030	lovastatin 40 mg oral tablet, extended release	Altacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	62022078130	lovastatin 60 mg oral tablet, extended release	Altacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	62269032029	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		12/1/2001
RX0220	CAD	2	NDC	Rx	62269032060	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		11/1/2001
RX0220	CAD	2	NDC	Rx	63739011401	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		1/31/2002
RX0220	CAD	2	NDC	Rx	63739011403	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		1/31/2002
RX0220	CAD	2	NDC	Rx	63739028015	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	63739028115	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	65597070118	colesevelam 625 mg oral tablet	Welchol	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	66582041428	ezetimibe 10 mg oral tablet	Zetia	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	66582041431	ezetimibe 10 mg oral tablet	Zetia	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	66582041454	ezetimibe 10 mg oral tablet	Zetia	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	66582041474	ezetimibe 10 mg oral tablet	Zetia	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	74312000720	niacin 250 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		

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RX0220	CAD	2	NDC	OTC	74312001480	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	74312005800	niacin 250 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00003053750	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00003061150	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00003061250	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		2/28/2003
RX0220	CAD	2	NDC	Rx	00003515405	pravastatin 10 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003515406	pravastatin 10 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		8/31/2002
RX0220	CAD	2	NDC	Rx	00003516811	aspirin-pravastatin buffered 81 mg-20 mg oral tablet	Pravigard Pac	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003516911	aspirin-pravastatin buffered 325 mg-20 mg oral tablet	Pravigard Pac	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003517311	aspirin-pravastatin buffered 81 mg-40 mg oral tablet	Pravigard Pac	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003517411	aspirin-pravastatin buffered 325 mg-40 mg oral tablet	Pravigard Pac	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003517805	pravastatin 20 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003517806	pravastatin 20 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003517875	pravastatin 20 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003518311	aspirin-pravastatin buffered 81 mg-80 mg oral tablet	Pravigard Pac	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003518411	aspirin-pravastatin buffered 325 mg-80 mg oral tablet	Pravigard Pac	HMG-CoA reductase inhibitors	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00003519410	pravastatin 40 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003519433	pravastatin 40 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00003519510	pravastatin 80 mg oral tablet	Pravachol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006054328	simvastatin 80 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006054331	simvastatin 80 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006054354	simvastatin 80 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006054361	simvastatin 80 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		6/30/2003
RX0220	CAD	2	NDC	Rx	00006054382	simvastatin 80 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006072628	simvastatin 5 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006072631	simvastatin 5 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006072654	simvastatin 5 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006072661	simvastatin 5 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006072682	simvastatin 5 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073061	lovastatin 10 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073128	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		2/2/2003
RX0220	CAD	2	NDC	Rx	00006073161	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073182	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073187	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073194	lovastatin 20 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073261	lovastatin 40 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073282	lovastatin 40 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00006073287	lovastatin 40 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073294	lovastatin 40 mg oral tablet	Mevacor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073528	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073531	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073554	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073561	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073582	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006073587	simvastatin 10 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074028	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074031	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074054	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074061	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074082	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074087	simvastatin 20 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074928	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074931	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074954	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074961	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00006074982	simvastatin 40 mg oral tablet	Zocor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00009026001	colestipol 5 gm oral granule	Colestid	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00009026002	colestipol 5 gm oral granule	Colestid	bile acid sequestrants	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00009026004	colestipol 5 gm oral granule	Colestid	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00009026017	colestipol 5 gm oral granule	Colestid	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00009037003	colestipol 5 gm/7.5 gm oral granule	Colestid Flavored	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00009037005	colestipol 5 gm/7.5 gm oral granule	Colestid Flavored	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00009045003	colestipol 1 gm oral tablet	Colestid	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00015058011	cholestyramine 4 gm/9 gm oral powder	Questran	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00015944214	cholestyramine 4 gm/5 gm oral powder	Questran Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00015944221	cholestyramine 4 gm/5 gm oral powder	Questran Light	bile acid sequestrants	N		2/14/2003
RX0220	CAD	2	NDC	Rx	00044125003	dextrothyroxine sodium 2 mg oral tablet	Choloxin	miscellaneous antihyperlipidemic agents	N		6/30/2000
RX0220	CAD	2	NDC	Rx	00046024381	clofibrate 500 mg oral capsule	Atromid-S	fibric acid derivatives	N		9/30/2003
RX0220	CAD	2	NDC	Rx	00047008420	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		8/1/2003
RX0220	CAD	2	NDC	Rx	00047008430	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		8/1/2003
RX0220	CAD	2	NDC	Rx	00047200820	cholestyramine 4 gm/9 gm oral powder	Locholest	bile acid sequestrants	N		7/1/2002
RX0220	CAD	2	NDC	Rx	00047200822	cholestyramine 4 gm/9 gm oral powder	Locholest	bile acid sequestrants	N		4/1/2002
RX0220	CAD	2	NDC	Rx	00047200920	cholestyramine 4 gm/5 gm oral powder	Locholest Light	bile acid sequestrants	N		4/1/2002
RX0220	CAD	2	NDC	Rx	00047200922	cholestyramine 4 gm/5 gm oral powder	Locholest Light	bile acid sequestrants	N		4/1/2002
RX0220	CAD	2	NDC	Rx	00071015523	atorvastatin 10 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00071015534	atorvastatin 10 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00071015540	atorvastatin 10 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00071015623	atorvastatin 20 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00071015640	atorvastatin 20 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00071015694	atorvastatin 20 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00071015723	atorvastatin 40 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00071015773	atorvastatin 40 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00071015823	atorvastatin 80 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00071015873	atorvastatin 80 mg oral tablet	Lipitor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00071073720	gemfibrozil 600 mg oral tablet	Lopid	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00071073730	gemfibrozil 600 mg oral tablet	Lopid	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00074400990	fenofibrate 54 mg oral tablet	Tricor	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00074401390	fenofibrate 160 mg oral tablet	Tricor	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00074434290	fenofibrate 67 mg oral capsule	Tricor	fibric acid derivatives	N		5/30/2003
RX0220	CAD	2	NDC	Rx	00074641590	fenofibrate 200 mg oral capsule	Tricor	fibric acid derivatives	N		9/30/2003
RX0220	CAD	2	NDC	Rx	00074644790	fenofibrate 134 mg oral capsule	Tricor	fibric acid derivatives	N		5/1/2002
RX0220	CAD	2	NDC	OTC	00075283501	niacin 125 mg oral capsule, extended release	Nicobid Tempules	miscellaneous antihyperlipidemic agents	N		1/1/2003
RX0220	CAD	2	NDC	OTC	00075284001	niacin 250 mg oral capsule, extended release	Nicobid Tempules	miscellaneous antihyperlipidemic agents	N		1/1/2003
RX0220	CAD	2	NDC	OTC	00075284101	niacin 500 mg oral capsule, extended release	Nicobid Tempules	miscellaneous antihyperlipidemic agents	N		1/1/2003
RX0220	CAD	2	NDC	OTC	00075285001	niacin 500 mg oral tablet	Nicolar	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00078017605	fluvastatin 20 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00078017615	fluvastatin 20 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00078023405	fluvastatin 40 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00078023415	fluvastatin 40 mg oral capsule	Lescol	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00078035405	fluvastatin 80 mg oral tablet, extended release	Lescol XL	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00078035415	fluvastatin 80 mg oral tablet, extended release	Lescol XL	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	OTC	00084001301	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		10/5/2000
RX0220	CAD	2	NDC	Rx	00087058005	cholestyramine 4 gm/9 gm oral powder	Questran	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00087058011	cholestyramine 4 gm/9 gm oral powder	Questran	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00087058901	cholestyramine 4 gm/5 gm oral powder	Questran Light	bile acid sequestrants	N		9/30/2002
RX0220	CAD	2	NDC	Rx	00087058903	cholestyramine 4 gm/5 gm oral powder	Questran Light	bile acid sequestrants	N		7/31/2002
RX0220	CAD	2	NDC	Rx	00087944211	cholestyramine 4 gm/5 gm oral powder	Questran Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00087944221	cholestyramine 4 gm/5 gm oral powder	Questran Light	bile acid sequestrants	N		2/14/2003
RX0220	CAD	2	NDC	Rx	00093057606	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00093057610	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00093067005	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00093067006	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00093092606	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00093092610	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00093092806	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00093092810	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00093801101	fenofibrate 134 mg oral capsule	Fenofibrate	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00093801201	fenofibrate 200 mg oral capsule	Lipidil Supra	fibric acid derivatives	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00093809667	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00093809682	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00093811167	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00093811183	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	OTC	00115408201	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00115408203	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00115408401	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00115408403	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00122303435	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00122303535	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00122603036	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00143134525	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		11/13/2003
RX0220	CAD	2	NDC	OTC	00182000101	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00182000110	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		11/7/2003
RX0220	CAD	2	NDC	OTC	00182005301	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	00182005310	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00182081101	niacin 250 mg oral capsule, extended release	Niacin TD	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00182081110	niacin 250 mg oral capsule, extended release	Niacin TD	miscellaneous antihyperlipidemic agents	N		11/7/2003
RX0220	CAD	2	NDC	Rx	00182126901	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00182195605	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		2/2/2002
RX0220	CAD	2	NDC	Rx	00182195626	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		7/31/2000
RX0220	CAD	2	NDC	Rx	00182195689	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	OTC	00182440401	niacin 250 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00182440501	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00182441701	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00182441710	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		11/7/2003
RX0220	CAD	2	NDC	OTC	00182441801	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00182441810	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00182709142	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00185007001	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00185007010	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00185007060	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00185007201	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00185007210	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00185007260	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00185007401	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00185007410	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00185007460	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	OTC	00185074310	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00185093997	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00185093998	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00185094097	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00185094098	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	OTC	00223135101	niacin 50 mg oral tablet	Nicotinic Acid	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00223135102	niacin 50 mg oral tablet	Nicotinic Acid	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00223135201	niacin 100 mg oral tablet	Nicotinic Acid	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00223135202	niacin 100 mg oral tablet	Nicotinic Acid	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00223135301	niacin 500 mg oral tablet	Nicotinic Acid	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00223135302	niacin 500 mg oral tablet	Nicotinic Acid	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00228255206	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00228255210	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00228255250	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00228255296	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00228263306	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00228263406	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00228263450	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00228263506	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00228263550	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		2/2/2002
RX0220	CAD	2	NDC	Rx	00245003623	cholestyramine 4 gm/5 gm oral powder	Prevalite	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00245003642	cholestyramine 4 gm/9 gm oral powder	Prevalite	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00245003660	cholestyramine 4 gm/5 gm oral powder	Prevalite	bile acid sequestrants	N		
RX0220	CAD	2	NDC	OTC	00245006011	niacin 500 mg oral tablet	Niacor B3	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00245006211	niacin 250 mg oral capsule, extended release	Slo-Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00245006311	niacin 500 mg oral tablet, extended release	Slo-Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00245006366	niacin 500 mg oral tablet, extended release	Slo-Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00245006411	niacin 750 mg oral tablet, extended release	Slo-Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00245006711	niacin 500 mg oral tablet	Niacor	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00256012301	niacin 50 mg/5 ml oral liquid	Nicotinex	miscellaneous antihyperlipidemic agents	N		11/6/2003

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	00302435010	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2002
RX0220	CAD	2	NDC	OTC	00304049401	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	OTC	00304069901	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00304207301	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	Rx	00310075139	rosuvastatin 10 mg oral tablet	Crestor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00310075190	rosuvastatin 10 mg oral tablet	Crestor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00310075239	rosuvastatin 20 mg oral tablet	Crestor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00310075290	rosuvastatin 20 mg oral tablet	Crestor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00310075430	rosuvastatin 40 mg oral tablet	Crestor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00310075590	rosuvastatin 5 mg oral tablet	Crestor	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00339565112	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		
RX0220	CAD	2	NDC	OTC	00364106701	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		11/30/2001
RX0220	CAD	2	NDC	Rx	00364213601	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00378051705	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00378051791	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00378651091	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00378652005	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00378652091	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00378654005	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00378654091	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00405423601	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		5/1/2001
RX0220	CAD	2	NDC	Rx	00405445631	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		5/1/2001
RX0220	CAD	2	NDC	Rx	00536385405	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00536385408	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	OTC	00536406801	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536407001	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536407010	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		5/1/2000
RX0220	CAD	2	NDC	OTC	00536407301	niacin 125 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536407401	niacin 250 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536407410	niacin 250 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536407501	niacin 400 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536407601	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536407610	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536407701	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536407810	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00536555405	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00536555408	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00536573308	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00536573324	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	OTC	00536703001	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536703301	niacin 750 mg oral tablet, extended release	Niacin ER	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00536703801	niacin 1000 mg oral tablet, extended release	Niacin ER	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00603293221	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00603375020	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00603375028	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	OTC	00603473521	niacin 125 mg oral capsule, extended release	Niacin TD	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00603473621	niacin 250 mg oral capsule, extended release	Niacin TD	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00603473632	niacin 125 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00615051110	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00615051113	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00615051413	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00615355953	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	00615355963	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	OTC	00677008910	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		5/1/2000
RX0220	CAD	2	NDC	OTC	00677042401	niacin 125 mg oral capsule, extended release	Niacin TD	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00677042501	niacin 250 mg oral capsule, extended release	Niacin TD	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00677042505	niacin 250 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00677112601	niacin 400 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00761023920	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00781105605	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00781105660	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00781121060	lovastatin 20 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00781121360	lovastatin 40 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	Rx	00781132360	lovastatin 10 mg oral tablet	Lovastatin	HMG-CoA reductase inhibitors	N		
RX0220	CAD	2	NDC	OTC	00781214901	niacin 125 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		10/30/2002
RX0220	CAD	2	NDC	OTC	00781215901	niacin 250 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00781260001	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		
RX0220	CAD	2	NDC	OTC	00814528214	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	00814531020	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	OTC	00814531030	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	OTC	00814531330	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	OTC	00814531930	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	OTC	00839610306	niacin 400 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	OTC	00839645806	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		10/10/2000
RX0220	CAD	2	NDC	OTC	00839645816	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		1/1/2000
RX0220	CAD	2	NDC	Rx	00839722806	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		1/1/2000
RX0220	CAD	2	NDC	Rx	00839778705	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		1/1/2000
RX0220	CAD	2	NDC	Rx	00839778712	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		1/1/2000
RX0220	CAD	2	NDC	OTC	00904062960	niacin 250 mg oral capsule, extended release	Niacin TR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904063160	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904063170	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904063180	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904227060	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	00904227080	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904227160	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904227172	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904227180	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904227260	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904227280	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00904291660	clofibrate 500 mg oral capsule	Clofibrate	fibric acid derivatives	N		
RX0220	CAD	2	NDC	OTC	00904434260	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	00904434270	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	Rx	00904523442	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00904523452	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00904523542	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00904523552	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		
RX0220	CAD	2	NDC	Rx	00904537940	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00904537952	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	Rx	00904537961	gemfibrozil 600 mg oral tablet	Gemfibrozil	fibric acid derivatives	N		
RX0220	CAD	2	NDC	OTC	10135018601	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	10135018801	niacin 250 mg oral capsule, extended release	Niacin TR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	10135019101	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	11845057701	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		10/23/2000
RX0220	CAD	2	NDC	OTC	11845057801	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		12/31/2000
RX0220	CAD	2	NDC	OTC	11845074201	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		12/31/2000
RX0220	CAD	2	NDC	OTC	11845094101	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		12/31/2000
RX0220	CAD	2	NDC	OTC	11845095201	niacin 500 mg oral tablet, extended release	Niacin ER	miscellaneous antihyperlipidemic agents	N		12/31/2000
RX0220	CAD	2	NDC	OTC	11845107501	niacin 500 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		12/31/2000
RX0220	CAD	2	NDC	Rx	15035140000	red yeast rice 600 mg oral capsule	Cholestin	HMG-CoA reductase inhibitors	N		1/1/2000
RX0220	CAD	2	NDC	Rx	15035140010	red yeast rice 600 mg oral capsule	Cholestin	HMG-CoA reductase inhibitors	N		1/1/2000
RX0220	CAD	2	NDC	OTC	17236041801	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	17236041810	niacin 50 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	17236042001	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	17236042010	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	17236042101	niacin 250 mg oral capsule, extended release	Niacin TR	miscellaneous antihyperlipidemic agents	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	17236042110	niacin 250 mg oral capsule, extended release	Niacin TR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	24385073478	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		12/30/2002
RX0220	CAD	2	NDC	Rx	38245026679	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		6/30/2002
RX0220	CAD	2	NDC	Rx	38245026680	cholestyramine 4 gm/9 gm oral powder	Cholestyramine	bile acid sequestrants	N		6/30/2002
RX0220	CAD	2	NDC	Rx	38245030028	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		10/31/2001
RX0220	CAD	2	NDC	Rx	38245030080	cholestyramine 4 gm/5 gm oral powder	Cholestyramine Light	bile acid sequestrants	N		10/31/2001
RX0220	CAD	2	NDC	OTC	43292012356	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	43292022328	niacin 500 mg oral tablet, extended release	Niacin ER	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	43292055740	niacin 250 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	43292055792	niacin 500 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	49348009710	niacin 100 mg oral tablet	Niacin	miscellaneous antihyperlipidemic agents	N		3/15/2002
RX0220	CAD	2	NDC	OTC	49483001301	niacin 125 mg oral capsule, extended release	Niacin SR	miscellaneous antihyperlipidemic agents	N		
RX0220	CAD	2	NDC	OTC	87701079035	GNP NIACIN 100 MG TABLET	Niacin	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	79854020983	NIACIN 500 MG TABLET	Niacin	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	79854020560	NIACIN 100 MG TABLET	Niacin	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	79854020125	NIACIN 50 MG TABLET	Niacin	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	79854020140	NIACIN 250 MG TABLET	Niacin	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	79854020311	NIACIN 500 MG TABLET SA	Niacin SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	79854020312	NIACIN 500 MG TABLET SA	Niacin SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	79854010997	NIACIN 500 MG TABLET	Niacin	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	79854010076	NIACIN 250 MG TABLET SA	Niacin SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	79854010078	NIACIN 500 MG TABLET SA	Niacin SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	79854010080	NIACIN 500 MG TABLET SA	Niacin SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	64980010301	NIACIN 500 MG TABLET SA	NIADELAY	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	64915014160	NIACIN 500 MG CAPSULE	NIACINOL	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	60814058901	NIACIN 500MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	59441015001	NIACIN 400 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	55953038240	CLOFIBRATE 500MG CAPSULE	CLOFIBRATE 500MG CAPSULE	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	54738053613	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL 600 MG TABLET	FIBRIC ACID DERIVATIVES	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	54629071403	NIACIN 500 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	54629071001	NIACIN 250 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	54629071101	NIACIN 500 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	54629066311	NIACIN 500 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	54629066312	NIACIN 500 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	54629066390	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	52569041340	HM NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	51079078701	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	51079078717	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	OTC	50428213843	CVS NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	50111019401	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	50111019403	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	50111019601	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	50111019603	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	50111019901	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	50111019903	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	50111020201	NIACIN 400 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49614059178	NIACIN 100MG TAB SYNTHETIC	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49452908001	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49452908002	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49452484001	NIACIN POWDER	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	49452201101	CHOLESTYRAMINE RESIN POWDER	CHOLESTYRAMINE	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	OTC	49260012165	NIACIN 250 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49260012183	NIACIN 500 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49260012126	NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49260012072	NIACIN 500 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49260012053	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49260012054	NIACIN 500 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	48107004970	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	43292055703	NIACIN 250 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	43292055539	NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	43292012355	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	41163023974	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	41163023550	NIACIN 500 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	41163023165	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	38779037300	GEMFIBROZIL POWDER	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	38779037310	GEMFIBROZIL POWDER	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	38779037350	GEMFIBROZIL POWDER	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	38779037810	NICOTINIC ACID POWDER	NICOTINIC ACID	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	38779037850	NICOTINIC ACID POWDER	NICOTINIC ACID	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	37205007878	NIACIN 100MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	29135000010	NICOTINIC ACID 250 MG TABLET SA	ENDUR-ACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	29135000020	NICOTINIC ACID 500 MG TABLET SA	ENDUR-ACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	20525010146	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	19458808001	NIACIN 100MG TABLET	ECK NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	19458808002	NIACIN 100 MG TABLET	ECK NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	17317037902	NIACIN POWDER	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	17317037904	NIACIN POWDER	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	16563002901	NIACIN 250 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	16563016563	NIACIN 500 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	12333915801	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	11845094105	NIACIN 500 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	11845088101	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	11845088201	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	11845088205	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	11845088301	NIACIN 400 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	11822336220	RA NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	11822014480	RA NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	11694088101	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	11694086101	NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	11383014711	NIACIN 500MG CAPSULE SA	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10939025411	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10939026111	NIACIN 250 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10939026211	NIACIN 500 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10267001204	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135019010	NIACIN 500 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135019069	NIACIN 500 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135019110	NIACIN 500 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135019160	NIACIN 500 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135019190	NIACIN 500 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135019201	NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135019210	NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	10135018901	NIACIN 400 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135018910	NIACIN 400 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135019001	NIACIN 500 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135018610	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135018701	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135018705	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135018710	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135018769	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135018805	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135018810	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	05000000602	SAV-ON NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	05000000603	SAV-ON NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	04000000218	OSCO NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	04000000117	OSCO NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

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RX0220	CAD	2	NDC	OTC	04000000118	OSCO NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	00904773252	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	OTC	00904434760	NIACIN 750MG CAPLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	00904063360	NIACIN 125MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	00904062980	NIACIN 250MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	00904063060	NIACIN 400MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	00904062970	NIACIN 250MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	00761067720	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	00904558152	LOVASTATIN 10 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00904558252	LOVASTATIN 20 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00904558352	LOVASTATIN 40 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	OTC	51552054325	CLOFIBRATE LIQUID	CLOFIBRATE	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	00093800901	FENOFIBRATE 67 MG CAPSULE	FENOFIBRATE	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	OTC	24385096978	NIACIN 250 MG TR TABLET	NIACIN TR	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49614059478	NIACIN 100 MG TAB SYNTHETIC	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

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RX0220	CAD	2	NDC	OTC	87701025823	GNP NIACIN 250 MG TR TABLET	NIACIN TR	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	87701034323	BL NIACIN 250 MG TR TABLET	NIACIN TR	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	65779041040	NIACIN 250 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	65779041901	NIACIN 250 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	38779037308	GEMFIBROZIL POWDER	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	38779037309	GEMFIBROZIL POWDER	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	38779037805	NICOTINIC ACID POWDER	NICOTINIC ACID	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	38779037808	NICOTINIC ACID POWDER	NICOTINIC ACID	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	49483001350	NIACIN 125 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	38779049804	PROBUCOL POWDER	PROBUCOL	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	41415011477	PX NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	49884079265	CHOLESTYRAMINE PACKET	QUESTRAN LIGHT	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	Rx	62022076030	LOVASTATIN 10 MG TABLET	ALTOCOR	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	62037079101	LOVASTATIN 10 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	62037079201	LOVASTATIN 20 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	Rx	62037079301	LOVASTATIN 40 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	49884079289	CHOLESTYRAMINE POWDER	QUESTRAN LIGHT	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	OTC	64899041901	HCA NIACIN 250 MG TABLET TR	NIACIN TR	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	64899045801	HCA NIACIN 500 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	97807041039	HCA NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	97807041040	HCA NIACIN 250 MG TABLET TR	NIACIN TR	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	97807041087	HCA NIACIN 500 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	00003519533	PRAVACHOL 80 MG TABLET	PRAVACHOL	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	65597070154	COLESERELAM 625 MG TABLET	WELCHOL	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	Rx	00069216030	AMLODIPINE/ATORVASTATIN 10 MG/10 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00069217030	AMLODIPINE/ATORVASTATIN 5 MG/20 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00069218030	AMLODIPINE/ATORVASTATIN 10 MG/20 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00069219030	AMLODIPINE/ATORVASTATIN 5 MG/40 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00069226030	AMLODIPINE/ATORVASTATIN 5 MG/80 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00069227030	AMLODIPINE/ATORVASTATIN 10 MG/80 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		

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RX0220	CAD	2	NDC	Rx	62022062730	LOVASTATIN 10 MG TABLET	ALTOPREV	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	62022062830	LOVASTATIN 20 MG TABLET	ALTOPREV	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	62022063030	LOVASTATIN 60 MG TABLET	ALTOPREV	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031128	EZETIMIBE/SIMVASTATI N 10/10 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031131	EZETIMIBE/SIMVASTATI N 10/10 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031154	EZETIMIBE/SIMVASTATI N 10/10 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031228	EZETIMIBE/SIMVASTATI N 10/20 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031231	EZETIMIBE/SIMVASTATI N 10/20 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031254	EZETIMIBE/SIMVASTATI N 10/20 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031331	EZETIMIBE/SIMVASTATI N 10/40 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031354	EZETIMIBE/SIMVASTATI N 10/40 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031531	EZETIMIBE/SIMVASTATI N 10/80 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031552	EZETIMIBE/SIMVASTATI N 10/80 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031554	EZETIMIBE/SIMVASTATI N 10/80 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		

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RX0220	CAD	2	NDC	OTC	65162041810	NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	65162041811	NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	65162042010	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	65162042110	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	00074612290	FENFIBRATE 48 MG TABLET	TRICOR	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	00074612390	FENFIBRATE 145 MG TABLET	TRICOR	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	00591045460	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	00069296030	AMLODIPINE/ATORVAS TATIN 2.5 MG/10 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00069297030	AMLODIPINE/ATORVAS TATIN 2.5 MG/20 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00069298030	AMLODIPINE/ATORVAS TATIN 2.5 MG/40 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	67253074150	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	51079097401	LOVASTATIN 10 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	51079097501	LOVASTATIN 20 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	51079097601	LOVASTATIN 40 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	65726040110	FENOFIBRATE 43 MG CAPSULE	ANTARA	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	65726040310	FENOFIBRATE 130 MG CAPSULE	ANTARA	FIBRIC ACID DERIVATIVES	N		

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RX0220	CAD	2	NDC	Rx	65726040325	FENOFIBRATE 130 MG CAPSULE	ANTARA	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	00228263350	LOVASTATIN 10 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	OTC	41163026633	EQL NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	66582031182	EZETIMIBE/SIMVASTATIN 10/10 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031282	EZETIMIBE/SIMVASTATIN 10/20 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031374	EZETIMIBE/SIMVASTATIN 10/40 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	66582031574	EZETIMIBE/SIMVASTATIN 10/80 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	OTC	10939043533	SUNMARK NIACIN 250 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49348051710	SUNMARK NIACIN 250 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	49452201103	CHOLESTYRAMINE RESIN POWDER	CHOLESTYRAMINE	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	Rx	59630048090	FENOFIBRATE 50 MG TABLET	TRIGLIDE	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	59630048590	FENOFIBRATE 160 MG TABLET	TRIGLIDE	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	00781121010	LOVASTATIN 20 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00781121310	LOVASTATIN 40 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00781132305	LOVASTATIN 10 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	60505003401	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		

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RX0220	CAD	2	NDC	Rx	60505003402	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	49884046565	CHOLESTYRAMINE PACKET	CHOLESTYRAMINE	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	Rx	49884046566	CHOLESTYRAMINE POWDER	CHOLESTYRAMINE	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	Rx	49884046665	CHOLESTYRAMINE LIGHT PACKET	CHOLESTYRAMINE LIGHT	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	Rx	49884046667	CHOLESTYRAMINE LIGHT POWDER	CHOLESTYRAMINE LIGHT	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	Rx	51927194200	CHOLESTYRAMINE RESIN POWDER	CHOLESTYRAMINE	BILE ACID SEQUESTRANTS	N		
RX0220	CAD	2	NDC	OTC	11822881060	RA NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	49452484002	NIACIN POWDER	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	00069215030	AMLODIPINE-ATORVASTATIN 5 MG/10 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00069225030	AMLODIPINE-ATORVASTATIN 10 MG/40 MG TABLET	CADUET	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	00591045405	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	OTC	10135018869	NIACIN 250 MG CAPSULE SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10135019168	NIACIN 500 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	10267001201	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	11694086104	NIACIN 50 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	11917003930	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	16563002902	NIACIN 250 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	17317037906	NIACIN POWDER	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	38779037305	GEMFIBROZIL POWDER	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	OTC	49260012163	NIACIN 250 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	49884075402	LOVASTATIN 10 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	49884075502	LOVASTATIN 20 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	49884075602	LOVASTATIN 40 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	OTC	54629070901	NIACIN 250 MG TABLET SA	NIACIN SA	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	57844069198	FENOFIBRATE 54 MG TABLET	LOFIBRA	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	57844069298	FENOFIBRATE 160 MG TABLET	LOFIBRA	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	62022062930	LOVASTATIN ER 40 MG TABLET	ALTOPREV	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	OTC	64899041801	HCA NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	65162042011	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	65726040125	FENOFIBRATE 43 MG CAPSULE	ANTARA	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	66582031352	EZETIMIBE/SIMVASTATIN 10/40 TABLET	VYTORIN	CHOLESTEROL ABSORPTION INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	67253074106	GEMFIBROZIL 600 MG TABLET	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		

Code Set ID	Topic Type	Topic Indicator	Name of Code System	OTC Status	Drug Code	Drug Description	Drug Brand Name	Drug Category	Drug Exclusion	Drug Effective Date	Drug Expiration Date
RX0220	CAD	2	NDC	OTC	79854020130	NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	OTC	87701071245	BL NIACIN 100 MG TABLET	NIACIN	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	51927264300	GEMFIBROZIL POWDER	GEMFIBROZIL	FIBRIC ACID DERIVATIVES	N		
RX0220	CAD	2	NDC	Rx	51927293200	PROBUCOL POWDER	PROBUCOL	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		
RX0220	CAD	2	NDC	Rx	68084013101	LOVASTATIN 10 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	68084013201	LOVASTATIN 20 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	68084013301	LOVASTATIN 40 MG TABLET	LOVASTATIN	HMG-COA REDUCTASE INHIBITORS	N		
RX0220	CAD	2	NDC	Rx	38779049805	PROBUCOL POWDER	PROBUCOL	ANTILIPEMIC AGENTS, MISCELLANEOUS	N		

INGENIX[®]

Input Guide

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Ingenix
950 Winter Street, Suite 3800
Waltham, MA 02451
Customer Support:
Tel: 866.818.7424
Fax: 781.895.9951
SymmetrySuite.Support@ingenix.com

What Input Files to Prepare

The following list specifies what input files you prepare for processing:

- The claims data file (required)
- The member data file (required)
- The member term data file (required)

Field Type Definitions and Input File Requirements

This chapter lists the field requirements for your input files. One of the attributes listed among the requirements is defined as "Type". There are four field types used to describe a field's value, and they are defined below.

Field Type	Definition
AlphaNum	A value made of letters and/or numbers. If a value of this type is made of numbers only, it will not be a value that can be operated on mathematically. For example, it would be inappropriate to subtract one procedure code from another procedure code even though both values may contain only numbers.
Num	A value made of numbers only, and which can logically be operated on mathematically. Age is an example of this type. One particular field, while not used in mathematical calculations, is defined in the EBM Connect software as such that it accepts only numeric values. (To enter a non-numeric value would cause EBM Connect processing to stop.) Therefore, this field is defined as Num. It is the Case ID field in the optional disease registry input file.
Date	A value which can be interpreted as a date value. Values should always use four-digit years but the format may vary otherwise.
DecNum	A value made of numbers and a decimal point. These values can also logically be operated on mathematically.

Claims Input File

The claims file contains detailed information on services that were billed or performed or otherwise rendered. The claims file includes:

- Medical claims, including medical services, facility services and clinic services
- Pharmacy claims, including billed prescriptions and drugs
- Lab claims, including lab test and results information

Field Name	Type	Length	Required or Optional
Family ID	AlphaNum	1-30	Always required for all claims
Patient ID	AlphaNum	0-2	Optional
Amount Paid	DecNum	1-11	Required for all claims
Amount Allowed	DecNum	0-11	Required for all claims
Procedure Code	AlphaNum	5	Required if there is no revenue code, NDC, or LOINC [®] code
Procedure Code Modifier	AlphaNum	2	Required for medical claims
Revenue Code	AlphaNum	0 or 4	Optional (applies to medical claims when used)
First Diagnosis Code	AlphaNum	5 or 6	Required for medical claims
Second Diagnosis Code	AlphaNum	0, 5 or 6	Optional (applies to medical claims when used)
Third Diagnosis Code	AlphaNum	0, 5 or 6	Optional (applies to medical claims when used)
Fourth Diagnosis Code	AlphaNum	0, 5 or 6	Optional (applies to medical claims when used)
First Date of Service	Date	8 or 10	Always required for all claims
Last Date of Service	Date	8 or 10	Required for all claims

Paid Date	Date	0, 8 or 10	Optional
Type of Service	AlphaNum	0-10	Optional
Provider ID	AlphaNum	1-20	Required for medical claims
Ordering Provider ID	AlphaNum	0-20	Optional
Provider Type	AlphaNum	1-10	Required for medical claims
Provider Specialty Type	AlphaNum	1-10	Required for medical claims
Provider Key	AlphaNum	1-20	Required for medical claims
NDC	AlphaNum	0 or 11	Required for Rx claims
Day Supply	Num	0-4	Required for Rx claims
Quantity Count	DecNum	0-10	Required for Rx claims
LOINC®	AlphaNum	0 or 7	Required for lab claims
Lab Test Result	AlphaNum	0-18	Required for lab claims
Place of Service	AlphaNum	1-10	Required for medical claims
Unique Record ID	AlphaNum	1-28	Required for all claims
Claim Number	AlphaNum	1-28	Required for all claims
Bill Type Frequency Indicator	Num	0 or 1	Optional
Patient Status	AlphaNum	1-2	Required for facility claims (involving admission or confinement).
Facility Type	AlphaNum	0-2	Optional
Bed Type	AlphaNum	0-1	Optional
First ICD-9 Procedure Code	AlphaNum	0, 4 or 5	Optional, but will impact results (applies to medical claims when used)
Second ICD-9 Procedure Code	AlphaNum	0, 4 or 5	Optional (see above)
Third ICD-9 Procedure Code	AlphaNum	0, 4 or 5	Optional (see above)
Fourth ICD-9 Procedure Code	AlphaNum	0, 4 or 5	Optional (see above)

Field Descriptions

Instructions for each input field are as follows:

Family ID

This field identifies all members of a family and can be any alphanumeric string.

Note: Remember that each Family ID (and Patient ID) listed in your claims input file must have a corresponding record in your member input data file and your member term data file.

Patient ID

This field identifies individual members within a family. If present, this field must be sorted within Family ID, so that all records for an individual are contiguous. If the Family ID uniquely identifies an individual, this field need not be specified (that is, its length in the dictionary will be zero).

Amount Paid

The amount paid for this claim line.

Amount Allowed

The allowed amount for this claim line. This amount typically represents the total amount reimbursed including deductibles, copays, coinsurance, insurer paid, etc.

Procedure Code

The procedure code must be one of:

- A procedure code specified in the Physician's Current Procedure Terminology, 4th Edition (CPT[®]-4 codes) defined by the American Medical Association, for the years 1997 and later.
- A procedure code specified by the HCFA Common Procedure Coding System, Level II code (HCPCS) defined by the Centers for Medicare and Medicaid Services (CMS) for the years 1999 and later.
- A National Uniform Billing Committee (NUBC) revenue code.

Note: When the NUBC code is entered in the Procedure Code field, it should be padded to the right with blanks because the Procedure Code field always occupies five characters.

- If your organization defines its own procedure codes and/or revenue codes, they must be mapped to standard procedure and revenue codes.

Procedure Code Modifier

Use this field to specify any procedure code modifier that accompanies the procedure code.

Revenue Code

The revenue code, if one was entered for the claim. Supported values in this field are NUBC revenue codes. If your organization defines its own revenue codes, they must be mapped to standard revenue codes.

The revenue code is an optional field, allowing you to define your input records so that you can place an NUBC revenue code and a CPT/HCPCS procedure code on a single record line.

For claim records that do not have a revenue code, leave the revenue code field blank.

First Diagnosis Code Through Fourth Diagnosis Code

Up to four diagnoses may be entered for each claim, but only the first is required.

If your organization defines its own diagnosis codes, they must be mapped to standard ICD-9 diagnosis codes.

First Date of Service and Last Date of Service

The first date and last date represented by the claim line. If you choose to use a date format with separators (such as YYYY/MM/DD or YYYY-MM-DD), the separators are ignored on input, so you can use any character as a separator. Valid formats include: YYYYMMDD, MMDDYYYY, DDMMYYYY, YYYY/MM/DD, MM/DD/YYYY, and DD/MM/YYYY, where the separator can be any character.

Paid Date

This field is optional. This is the date the claim was paid. The format of the paid date must be the same as that used in the First and Last Date of Service.

Type of Service

This is an optional code which represents the type of service (TOS) performed for this claim. If no specific value is available for this field, it should be filled with blanks. If this field is not used (i.e., its length is set to zero in the configuration), non-pharmaceutical claims with no procedure code will be treated as ancillary records.

Provider ID

Provider identification number from the claim. Used to identify who performed the service.

Ordering Provider ID

This is an optional field. This is the identification number of the provider who ordered the service.

Provider Type

This code represents the type of provider who performed the service. Examples of provider types would be chiropractor, nurse practitioner, medical doctor, counselor, pharmacy, hospital or treatment facility.

Provider Specialty Type

This code represents the specialty of the provider who performed the service.

Provider Key

Unique number or code for a physician who has multiple provider IDs or specialties. A single health care provider may have multiple provider IDs in your input claims data, but this person or entity should have only one provider key.

NDC

If this is a pharmaceutical claim, this field should contain the drug's NDC code. For non-pharmaceutical claim records, the NDC field should be filled with blanks.

Day Supply

For pharmacy records, the number of days a filled prescription is expected to last. If you have no pharmacy records, the Days Supply is an optional field.

Quantity Count

Quantity of drug dispensed in metric units:

Each - solid oral dosage forms (tablet, capsule), powder filled (dry) vials, packets, patches, units of use packages, suppositories, bars.

Milliliter - (cc) liquid oral dosage forms, liquid filled vials, ampules, reconstituted oral products.

Grams - ointments, bulk powders (not IV).

If you have no pharmacy records, the Quantity Count is an optional field.

LOINC®

Logical Observation Identifiers Names and Codes (LOINC®). The LOINC Code is a universal identifier for a lab test for a particular analyte. The LOINC User's Guide and database can be found at www.regenstrief.org.

Enter a LOINC code if the record is a lab record. For non-lab records, leave the LOINC field blank.

If you have no lab records in your claims input, the LOINC code is optional.

Notes:

- (1) When using lab results data that has not been mapped to a LOINC code, map the comparable vendor-specific test number provided by the laboratory vendor(s) to one of these default codes.
- (2) This is a retired code which may be present on historical data, or which some laboratories may be continuing to use. Input record data with this code is included in the definition of this test.

Lab Test Result

If the record is a lab record, use this field to enter the result value of lab test. For non-lab records, this field should be blank.

If you have no lab records in your claims input, the Lab Test Result is optional.

Place of Service

Place of service (POS). You must map your internal POS codes to Centers for Medicare and Medicaid Services (CMS) standard POS codes.

Unique Record ID

This required field contains a unique identifier representing the service line from the claim. For medical services, this ID typically represents the service row from the CMS 1500 or CMS 1450/UB92 claim form.

Claim Number

A unique identifier used to link service lines for a specific claim submitted for a member. If a claim has multiple service lines, each service will have a unique record ID and the same claim number to represent the claim.

Bill Type Frequency Indicator

This optional field is used to indicate the disposition of confinements.

Patient Status

This field is required for facility claims. The contents will be the patient status indicator field from the NUBC UB-92 form. This field can denote whether the member died during a confinement.

Facility Type

This field is optional. Space for it is provided to allow for additional post grouping analysis. The contents will typically be the UB-92 facility type data value. This would allow records to be easily selected for diagnosis related grouping (DRG) based on the facility type.

Bed Type

If a value is present, this field acts as an additional discriminator in determining whether a Facility record extends an existing confinement or starts a new confinement.

First ICD-9 Procedure Code Through Fourth ICD-9 Procedure Code

If your claims have ICD-9 procedure codes, include them in your claims input file.

If a decimal point will appear in this field in your claim records, the length should be given as 5. If the decimal separator is not used, the length is 4. If these fields are unused, the length is zero.

Member Input File

The member data file contains the most current information about the member.

Field Descriptions

Field	Type	Length	Required or Optional
Family ID	AlphaNum	1-30	Required
Patient ID	AlphaNum	0-2	Optional
Patient Gender	AlphaNum	1	Required
Date of Birth	Date	8 or 10	Required
Member Beginning Eligibility Date	Date	0, 8 or 10	Optional
Member Ending Eligibility Date	Date	0, 8 or 10	Optional

Instructions for each input field are as follows:

Family ID

This field identifies all members of a family and can be any alphanumeric string. The records in the member file must be sorted first on the Family ID (together with Patient ID, if available) so that all records for an individual are contiguous.

Patient ID

This field identifies individual members within a family. If present, this field must be sorted within Family ID, so that all records for an individual are contiguous. If the Family ID uniquely identifies an individual, this field need not be specified (that is, its length in the dictionary will be zero).

Patient Gender and Date of Birth

The member's gender (F or M) and date of birth. If you choose to use a date format with separators (such as YYYY/MM/DD or YYYY-MM-DD), the separators are ignored on input, so you can use any character as a separator. Valid date formats include: YYYYMMDD, MMDDYYYY, DDMMYYYY, YYYY/MM/DD, MM/DD/YYYY, and DD/MM/YYYY, where the separator can be any character.

Member Beginning Eligibility Date and Ending Eligibility Date

The first date on which the member became covered under the plan and the last date of the member's coverage. If you choose to use a date format with separators (such as YYYY/MM/DD or YYYY-MM-DD), the separators are ignored on input, so you can use any character as a separator. Valid formats include: YYYYMMDD, MMDDYYYY, DDMMYYYY, YYYY/MM/DD, MM/DD/YYYY, and DD/MM/YYYY, where the separator can be any character.

Member Term Input File

The member term data file contains member coverage and term activity information. Plan coverage begin and end dates are required in order to correctly calculate the other fields in the member term file. There may be more than one record per individual member.

Field Descriptions

Field	Type	Length	Required or Optional
Family ID	AlphaNum	1-30	Required
Patient ID	AlphaNum	0-2	Optional
Member Beginning Eligibility Date	Date	8 or 10	Required
Member Ending Eligibility Date	Date	8 or 10	Required
Primary Care Provider	AlphaNum	20	Required
Provider Specialty Type	AlphaNum	1-10	Required
Medical Flag	AlphaNum	1	Required
Pharmacy Flag	AlphaNum	1	Required

Instructions for each input field are as follows:

Family ID

This field identifies all members of a family and can be any alphanumeric string. The records in the member term file must be sorted first on the Family ID (together with Patient ID, if available) so that all records for an individual are contiguous.

Patient ID

This field identifies individual members within a family.

Member Beginning Eligibility Date and Member Ending Eligibility Date

The first date on which the member became covered under the plan and the last date of the member’s coverage. If you choose to use a date format with separators (such as YYYY/MM/DD or YYYY-MM-DD), the separators are ignored on input, so you can use any character as a separator. Valid formats include: YYYYMMDD, MMDDYYYY, DDMMYYYY, YYYY/MM/DD, MM/DD/YYYY, and DD/MM/YYYY, where the separator can be any character.

Primary Care Provider

The provider key for the member’s primary care physician. A single health care physician may have multiple provider IDs in your input claims data, but this person should have only one provider key.

Provider Specialty Type

This code represents the specialty of the primary care physician.

Medical Flag

Identifies whether the member has medical coverage (Y or N).

Pharmacy Flag

Identifies whether the member has pharmacy coverage (Y or N).